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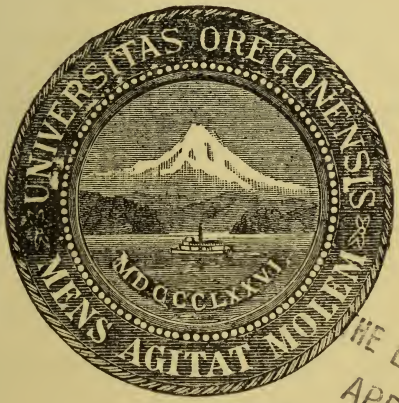
TWENTY-THIRD

Annual Catalogue

OF THE

UNIVERSITY OF OREGON.



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UNIVERSITY OF ILLINOIS.

1898-1899

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UNIVERSITY PRESS
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CALENDAR, 1899-1900.

Sept. 18, 1899,	Session begins.
June 15, 1900,	Session ends.
Sept. 18, 1899,	First Semester begins.
Friday, Feb. 9, 1900,	First Semester ends.
Monday, Feb. 12, 1900,	Second Semester begins.
June 14, 1900,	Second Semester ends.
Sunday, June 10, 1900,	Baccalaureate Sermon.
Monday, June 11, 7:30 p. m.,	Graduating Exercises in [Music.
Tuesday, June 12, 10 a. m.,	Field Day.
Tuesday, June 12, 3 p. m.,	President's Reception.
Tuesday, June 12, 7:30 p. m.,	Reunion.
Wednesday, June 13,	Class Day.
Wednesday, June 13, 3 p. m.,	Alumni Meeting.
Wednesday, June 13, 7:30 p. m.,	Address before University.
Thursday, June 14,	Annual Meeting, Board of [Regents.
Thursday, June 14, 10 a. m.,	Commencement Exercises.

The dates for the winter and spring recesses and the Junior Exhibition will be fixed by the faculty.

BOARD OF REGENTS:

NAME AND RESIDENCE.	TERM EXPIRES.
Hon. D. P. Thompson, Portland	April 1, 1899
Dr. S. Hamilton, Roseburg	April 1, 1901
Hon. C. C. Beekman, Jacksonville	April 1, 1903
Hon. C. A. Dolph, Portland	April 1, 1903
Hon. Wm. Smith, Baker City	April 1, 1905
Hon. R. S. Bean, Salem	April 1, 1905
Hon. Charles Hilton, The Dalles	April 1, 1905
Hon. S. H. Friendly, Eugene	April 1, 1907
Hon. C. B. Bellinger, Portland	April 1, 1909

OFFICERS OF THE BOARD.

Hon. R. S. Bean ..... President.

A. G. Hovey ..... Treasurer.

Hon. J. J. Walton, Eugene ..... Secretary.

EXECUTIVE COMMITTEE.

S. H. Friendly, Chairman,

D. P. Thompson,

C. A. Dolph.

J. J. Walton, Secrectary.

FOUNDATION, MANAGEMENT AND SUPPORT.

The University of Oregon, by an act of the state legislature, was founded and located at Eugene in 1872. Regular instruction of students began in 1876.

The management of the university is entrusted to a board of regents, appointed for a term of twelve years by the governor of the state and confirmed by the State Senate. The board of regents confers such degrees and grants such diplomas as other universities are wont to confer and grant.

The permanent endowment of the university amounts to about one hundred thousand dollars realized from the sale of land granted to the state by the general government for the purpose of establishing a university, and a fund of fifty thousand dollars donated by Mr. Henry Villard. The university also receives an annual sum from the state.

SITUATION.

The University of Oregon is situated at Eugene, Lane County, one hundred and twenty-five miles south of Portland, on the Southern Pacific Railroad. Eugene is the county seat of Lane County, has four thousand inhabitants and is surrounded by scenery of great natural beauty. The university campus lies southeast of Eugene, about one mile and a half from the postoffice, and contains twenty-seven acres of land.

THE FACULTY.

CHARLES HIRAM CHAPMAN, PH. D., *President*. A. B., *extra ordinem*, Johns Hopkins University, 1888. Fellow, 1888-89. Ph. D., Johns Hopkins University, 1890. Instructor and Associate in Mathematics, Johns Hopkins University, 1892. Member of American Mathematical Society.

Publications: On the Units of an n-fold Space, Am. Journal of Math. On the Matrix which Represents a Vector, Am, Journal of Math. On the Application of Quaternions to projective Geometry, Am. Journal of Math. A French Analytical Geometry, Bulletin Am. Math. Society. Review of Lie's Theorie der Transformationsgruppen, Bulletin Am. Math. Society. Weierstrass and Dedekind on General Complex numbers, Bulletin Am. Math. Society. Review of Macfarlane's Algebra of Physics, Bulletin Am. Math. Society. An Elementary Treatise on the Theory of Equations, Wiley & Son, New York.

FREDERIC STANLEY DUNN, A. B., *Professor of Latin*. A. B., University of Oregon, 1892. A. B., Harvard University, 1894. Professor of Latin and Greek, Willamette University, 1895–98. Assistant Professor of Latin, University of Oregon, 1898.

THOMAS CONDON, PH. D., *Professor of Geology*. Professor of Geology and Natural History, University of Oregon, 1876-82. Professor of History, Geology and Natural History, University of Oregon, 1882-92. Professor of Geology and Natural History, University of Oregon, 1892-95.

Publications: The Fossil Horse: His Place in the Records of the Past and the Theories of the Present, Oregonian. The Rocks of the John Day Valley, The Willamette Sound, How Oregon Was Made, Overland Monthly. Preliminary Report of Geology of Oregon, State Print.

JOHN STRAUB, A. M., *Professor of Greek.* A. B., Mercersburg College, 1876. A. M., Mercersburg College, 1879. Assistant Professor of Greek and German, Mercersburg College, 1877–78. Professor of Modern Languages, University of Oregon, 1878–82. Member of the Modern Language Association of America.

BENJAMIN JAMES HAWTHORNE, A. M., *Professor of Mental Science.* A. M., Randolph Macon College, 1861. Professor of Languages in Collegiate Institute, Baton Rouge, 1866–69. Professor of Languages, West Tennessee College, 1869–73. President, West Tennessee College, 1873. Professor of Languages, State Agricultural College, Oregon, 1873–84.

LUELLA CLAY CARSON, A. M., *Professor of Rhetoric and English Literature.* A. M., University of Oregon and Pacific University. Preceptress, Pacific University and Tualatin Academy, 1879-84. Professor of Rhetoric and Elocution, University of Oregon, 1889-95. Member of the Modern Language Association of America.

ARTHUR LACHMAN, PH. D., *Professor of Chemistry.* B. S., University of California, 1893. Ph. D., University of Munich, 1895. Fellow and assistant in General Chemistry, University of Michigan, 1895-96, Instructor in General Chemistry, ibid, 1896-97.

Publications: Uber einige Nitramine der Harnstoffreihe, Ber. d. chem. Gesell., 1894. Das Nitramid, ibid., 1894. Uber Nitroharnstoff, Nitrourethan und das Nitramid, Ann. Chem. (Liebig), 1895. The Existence of Pentaethyl Nitrogen, Am. Chem. Journal, 1896. The Constitution of the Acid Amides, ibid., 1896. Zur kryoskopischen Constitutionsbestimmung der Sæureamide, Ztschr.

physik. chem., 1897. Die Einwirkung von Zinkæthyl auf Phenyljodidchlorid, Ber, d. chem. Gesell., 1897. The Preparation of Zinc ethyl, Am. Chem. Journal, 1897. The Action of Sodium upon Methylpropylketone and Acetophenone, ibid., 1897. The Relation of Trivalent to Pentavalent Nitrogen, ibid., 1898. The Spirit of Organic Chemistry, The Macmillan Company, New York and London, 1899. Zur Existenz des Triaethylamin oxids. Ber. d. chem. Gesell., 1899.

E. B. McELROY, PH. D., *Professor of Logic.* A. M., Christian College, 1883. Ph. D., Willamette University, 1884. Instructor in Oregon Agricultural College, 1876-82. State Superintendent of Public Instruction, Oregon, 1882-95. Member of the National Department of Superintendence. Member and Vice-President of the National Educational Association.

CHARLES FRIEDEL, PH. D., *Professor of Physics.* A. B., University of Wisconsin, 1882. Student at University of Leipsic, 1887-89. Student at Johns Hopkins University, 1892-93. Ph. D., University of Leipsic, 1895. Patentee of galvanic cell, 1881.

Publications: Ueber die Absorption der Strahlenden Warme durch Flussigkeiten, Weidemann's Annalen der Physik und Chemie, Band 55.

FREDERICK L. WASHBURN, A. M., *Professor of Biology.* A. B., Harvard University, 1882. A. M., Harvard University, 1895. Graduate student, Johns Hopkins University, 1886-87. Instructor in Zoology, University of Michigan, 1887-88. Graduate student, Harvard University, 1888-89. Professor of Zoology, Oregon Agricultural College, and Entomologist to the Experiment Station, 1889-95. Appointed State Biologist, Feb. 11, 1899.

Publications: Entomological and Zoological Bulletins from Oregon Experiment Station, 1888-94. Ookinesis in Limax Maximus, American Naturalist, June, 1894. Eastern Oysters on the Oregon Coast, Report to State Fish and Game Commissioner, Oct.

15, 1896, State print. Preliminary report upon Introduction of Eastern Oysters to the Oregon Coast, summer, 1897; April 21, 1898. Continuation of Experiments in Propagating Eastern Oysters on the Oregon Coast: Report of Work of summer of 1898, Nov. 20, '98. Report on Experiments in Propagating Eastern Oysters on Oregon Coast, in Report of U. S. Fish Commissioner for 1898, Washington, D. C. [Abstract.] Renal Abnormality in Cat, American Naturalist, April 1896, pg. 33. An Instance of Webbed Fingers in Man, [F. L. W., et. al.] Popular Science Monthly, Oct., 1895, pg. 856. A Peculiar Toad, American Naturalist, Feb., 1899 Hermaphroditism in Ostrea lurida, Science —— 1899.

FREDERIC G. YOUNG, A. B , *Professor of Economics and History.* A. B., Johns Hopkins University, 1886. University Scholar, Johns Hopkins University, 1886-87. Vice-President, State Normal School, Madison, S. D., 1887-90. Principal, Portland, Oregon, High School, 1890-94. President, Albany (Oregon) College, 1894-95. Editor of "The Sources of Oregon History," and of "Semi-Centennial History of Oregon." Member of the following: The American Economic Association; The American Historical Association; The American Academy of Political and Social Science.

GEORGE LILLEY, PH. D., *Professor of Mathematics.*

Author of Elements of Algebra; Higher Algebra; Silver, Burdette & Co.

FRIEDRICH G. G. SCHMIDT, PH. D., *Professor of Modern Languages.* Student at University of Erlangen, 1888-90. Student Johns Hopkins University, 1893-96. University Scholar, 1894-95. Fellow, 1895-96 and Ph. D., 1896. Acting Professor of German, Cornell College, 1896-97. Member of the Modern Language Association of America. Member of the Verein fuer bayerische Volkskunde und Mundartforschung.

Publications: German Manuscripts in the Library of Maihingen, Bavaria; Johns Hopkins University Circulars, Vol. XV, No. 123.—Historie von einem Ritter, wie er buessett; from a Manuscript of the XV. Century; Publications of the Modern Language

Association. Vol. XI.—Deutsche Handschriften in Maihingen; Alemannia, Vol. XXIV.—The Dialect of the Ries I, II; Modern Language Notes, Vol. XI, 5. 8.—Theatrum Crucis et Passionis Domini Iesu Christi, from a manuscript of the XVII. Century; Americana Germanica, Vol. I.—Die Rieser Mundart; J. Lindauer'sche Buchhandlung [Schœpping] Munich.—Wildenbruch's Das edle Blut, Heath & Co., Boston.—Predigten eines Katholiken aus dem XVII. Jahrhundert; Theol. Zeitblætter.—Die Rieser Syntax; Americana Germanica, Vol. II.—Geistliches Gespraech zwischen einer Fuerstin und Kramerin von einem Pater noster aus Edelsteinen; A Maihingen Manuscript: Alemannia, Vol. XXV. Wildenbruch's Der Letzte, Heath & Co., Boston.

EDWARD H. MCALISTER, M. A., *Professor of Applied Mathematics.* A. B., University of Oregon, 1890. M. A. University of Oregon, 1898. Tutor 1891. Associate Professor, 1896. Professor, 1898.

IRVING M. GLEN, M. A., *Professor of English Philology and Oratory.* Graduate California School of Elocution and Oratory, 1889; graduate California State Normal School, San Jose, 1890; graduate Elwood Conservatory of Music, 1890; A. B., University of Oregon, 1894; graduate student at Johns Hopkins University, 1894-96; Professor of English and Latin, McMinnville College, 1896-7; M.A., University of Oregon, 1897; Lecturer on English Literature, Willamette Valley Chautauqua Assosciation, 1897. Member of Modern Language Association of America.

CHARLES A. BURDEN, *Director of Physical Education.* Student of Dr. W. G. Anderson, Yale University. Assistant in physical culture, Yale University, 1896-97. Instructor at Chautauqua, N. Y., Summer School, 1897.

W. GIFFORD NASH, *Musical Director.* One year in Leipzig Conservatorium and three years with Prof. Martin Krause of Leipzig, Germany.

CAMILLA LEACH, *Librarian and Registrar.*

CLINTON E. WOODSON, A. B., *Instructor in History.*

MAX A. PLUMB, B. S., Tufts College, *Instructor in Chemistry.*

ARTHUR CHARLES HIATT, *Laboratory Assistant in the Department of Physics.*

IDA BEL ROE, A. B., *Assistant in English.*

LILLIAN M. LEWIS, *Matron of the Dormitory.*

UNIVERSITY SOCIETIES.

Alumni Association.

The Alumni Association of the University of Oregon was organized in 1879. The membership consists of all the graduates of the literary department of the university. The objects of the association are "To advance the cause of higher education, to promote the interests of the University of Oregon, and to encourage mutual acquaintance and good fellowship among the alumni."

Public literary exercises are conducted annually by the association on Wednesday afternoon of commencement week, and an annual banquet is given on Thursday evening, to which also the members of the faculty, board of regents, and prominent educators of the state are invited. The banquet is made the occasion for brief discussions of topics pertaining to the interests of higher education, usually given in the form of toasts, by prominent alumni and invited guests.

The Following is a list of the Presidents of the Association from its organization to the present time:

R. S. Bean,	Elected in	1879
George S. Washburne	" "	1880
M. S. Wallis	" "	1881
Nettie McCornack	" "	1882
Emery E. Burke	" "	1883
Wallace Mount	" "	1884
B. B. Beekman	" "	1885
Anna Whiteaker	" "	1886
H. F. McClure	" "	1887

C. S. Williams	"	"	1888
S. W. Condon	"	"	1889
Edgar Mclure	"	"	189c
E. O. Potter	"	"	1891
E. H. McAlister	"	"	1892
Fletcher Linn	"	"	1893
Arthur L. Veazie	"	"	1894
Herbert T. Condon	"	"	1895
Julia Veazie	"	"	1896
Fred. S. Dunn	"	"	1897
Irving M. Glen	"	"	1898

The Students' Association.

The constitution adopted by the body of college students and ratified by the faculty, is here printed:

We the undersigned collegiate students hereby organize a student body, which will have for its purpose the carrying on of such enterprises as shall be entrusted to it by the faculty, and we hereby adopt the following constitution for its regulation:—

CONSTITUTION.

ARTICLE I.—NAME.

The name of this association shall be "The Collegiate Students' Association of the University of Oregon."

ARTICLE II.—OBJECT.

The object of this association shall be to conduct such student enterprises as the association may decide, provided that they have previously received the approval of the faculty

ARTICLE III.—MEMBERSHIP.

All students of the college department of the university shall be members of this association upon signing the constitution.

ARTICLE IV.—OFFICERS.

SECTION 1. The officers of this association shall be a president, a vice-president and a secretary, chosen by ballot at the regular annual meeting of the association held in the last week of September each year, provided no student shall be eligible to office whose standing is under 85 per cent., and the election of all officers shall be subject to the approval of the faculty. If a vacancy occur in any office such vacancy shall be filled by an immediate election.

SEC. 2. The president shall preside at all meetings of the association and perform the usual duties pertaining to that office.

SEC. 3. The vice-president shall perform the duties of the president in the absence of that officer.

SEC. 4. The secretary shall keep an accurate record of the proceedings of each meeting of the association, address such communications as the association may direct, and attend to the customary duties of the secretary's office.

ARTICLE V.—MEETINGS.

SECTION 1. Regular meetings of the association shall be held during the last week of the university session in September, December, March and June of each year; at the time and place specified in the written call of the president.

SEC. 2. The president shall call a special meeting at the written request of thirty members; two days' notice

thereof shall be given, and no business shall be transacted not specified in the call.

SEC. 3. Thirty members shall constitute a quorum.

ARTICLE VI.

"Roberts' Rules of Order" shall govern this association when the constitution does not specify.

ARTICLE VII.—AMENDMENTS.

Amendments to this constitution may be proposed at any regular meeting when they shall be read for the first time; at any meeting held not sooner than two weeks thereafter they shall be read a second time and voted upon. A two-thirds (⅔) vote of the members present shall be necessary for adoption, to be approved by the faculty before going into effect.

Young Women's Christian Association.

This society of students was organized in March, 1894. Its object is to throw Christian influences around the young women of the university. Also to cultivate the social powers of the members. The usual exercises are those of an ordinary prayer meeting. The officers are chosen for a term of one year, and the association meets in the dormitory at 4 o'clock, Wednesday afternoons.

Young Men's Christian Association.

This association was organized in February, 1892. Its object is to encourage and promote Christian work, and Christian ideas in the student life of the university. There is no regular order of exercises at the meetings. A leader is chosen for each meeting and a subject assigned to him. The leader conducts the meetings as he thinks proper or as instructed by the committee on reli-

gious meetings. The principal exercises are singing, praying and speaking. The officers are chosen for a year; and the assoication meets in the South parlor of the dormitory at 6:30 o'clock, Wednesday evenings. The meetings close at 7:15.

Laurean Society.

The Laurean Society was organized in 1876. Its objects are to develop the power of argumentation, to cultivate extempore speaking and to train the mind to criticise correctly. The Laurean Society jointly with the Eutaxian Society owns a good library of about 700 volumes. The time of meeting is 7:30 o'clock each Friday evening of the school year. Its place of meeting is the basement room in Deady Hall. The officers are elected for one quarter of the school year, or ten weeks. Among the officers are included an editor, historian and parliamentarian. The usual order of exercises is calling to order, routine business, recess, an extemporaneous speech, a prepared address from members appointed for the occasion, debate. The leaders and their colleagues discuss the question first, then the subject is thrown open for discussion by any member present.

Philologian Society.

The society was organized October 21st., 1893. Its object is to discuss questions of general interest, and to secure for its members proficiency in debate and a thorough knowledge of parliamentary usage. The usual exercises are a declamation; an extemporaneous address on some current topic; a prepared address of fifteen minutes; and a debate open to all members with leaders appointed two weeks in advance. The officers are elected for a term of ten weeks; and the meetings are held in the physical lecture room at 7:30 on Friday evenings.

Eutaxian Society.

This is a literary society for women. The usual order of exercises is:—Rhetoricals, debate, literary program or parliamentary discussion. The officers are chosen for a term of the college year and the society meets in the society room in Deady Hall at 3:15 o'clock on Friday afternoons.

Academy of Science of the University of Oregon.

The following papers have been read during the year:

Feb. 26, 1898, The Behavior of the Malarial Parasite in the Blood, by Dr. Alice Hall Chapman.

Mar. 26, 1898, The History of Oregon in a Scientific Spirit, by F. G. Young.

April 30, 1898, The Theory of the Vortex Atom, by Max A. Plumb.

June 4, 1898, An Introduction to Phonetics, by F. G. G. Schmidt.

Oct. 29, 1898, A Preliminary report on a Recently Discovered Hippa, by Thomas Condon.

Dec. 3, 1898, The Scientific Study of Literature, by B. J. Hawthorne.

Feb, 4, 1899, The Evolution of the X-Ray, Charles Friedel.

Feb. 4, 1899, (By title) An Abnormal Toad, by F. L. Washburn.

Feb. 4, 1899, (By title) Hermaphroditism in Ostrea Lurida, by F. L. Washburn.

At the meeting in February '99 the following officers were elected for the ensuing year:

E. H. McAlister, President; F. L. Washburn, Vice-president; Max A. Plumb, Secretary and Treasurer.

Athletics.

The students of the university maintain an athletic club. The club conducts the athletic affairs of the university under the following rules:

I.—QUALIFICATIONS FOR MEMBERSHIP IN TEAMS.

1. The candidate must have earned 17 credits in the university. This requirement may be considered satisfied if the student during the second semester of his first year has met all other requirements.
2. He must maintain a student character above reproach to be eligible to membership or to retain his position on a team.
3. He must have earned 10 credits during the preceding semester with the mark of C or better, and he must not have made any failures in examinations, to be admitted to membership on a team; and he must maintain said standing in order to retain his membership.
4. If the student has registered after the opening of the university year, he must have been registered at least one month before taking part in any intercollegiate contest.

II.—THE COACH.

1. The coach must be of good moral character.
2. He must be a college graduate.
3. He must be approved by the athletic committee before he is employed.

III.—GAMES AND CONTESTS.

1. The football season shall close December 1st.
2. No games shall be played except with teams of colleges that earn at least 10 college credits. This shall not apply to the annual meet at Salem.
3. The schedule of games shall be submitted to the faculty for approval before any games are arranged.
4. General management.—All actions and resolutions of the athletic club and of all teams must be reported to the athletic committee for approval.

REQUIREMENTS FOR ADMISSION.

A. Admission to the Sub-Freshman Class.

Under the regulations adopted by the Board of Regents in February, 1897, students must have thirty credits of preparation above the eighth grade in order to enter the sub-freshman class. The preparation should be made in the following branches: History, algebra,

geometry, physiology, advanced physical geography, English grammar, English literature, English composition, civics, and if possible, Latin and physics.

The following two years' course of study is so arranged as to earn the credits at the rate of fifteen each year; each class recites daily. It is intended as a suggestion for schools in the smaller towns of the state.

Ninth Grade.

FIRST HALF YEAR:—Algebra, physical geography, history of Greece, English classics and composition.

SECOND HALF YEAR:—Algebra, physical geography, history of Rome, English classics and composition.

Tenth Grade.

FIRST HALF YEAR:—Algebra, physiology or physics, geometry, English classics and composition.

SECOND HALF YEAR:—Geometry, civil government, botany, advanced English grammar.

This course gives the student four recitations a day for two years. Each recitation should be forty-five minutes long in order to earn the credits. Credits are computed on the understanding that one recitation per week of forty-five minutes in length for forty weeks shall earn one credit. Hence when the recitations are thirty minutes in length two-thirds as many credits will be earned. The school year ought to be at least thirty-six weeks in length.

The work in English classics and composition should have a full recitation period daily. It should be considered as important as the mathematics.

Latin may be substituted for any studies in the course except English and mathematics. None of the studies in the above course will be taught in the university after the present classes have finished them, and no new student will be admitted to the classes.

The university has made arrangements to give instruction in these branches by correspondence to deserving students who are not within reach of a school where they are taught. Those wishing to take lessons by correspondence should address University of Oregon, Eugene, Oregon, Extension Department.

Algebra.

The requirements in algebra embrace the following subjects: Factors, common divisors and multiples, fractions, involution, including the binomial theorem for positive integral exponents; evolution, theory of exponents, radicals and equations involving radicals, ratio and proportion, elementary logarithms; the ordinary methods of elimination, and the solution of numerical and literal equations of the first and second degrees, with one or more unknown numbers, and of problems leading to such equations, as much as is contained in Lilley's text book.

Plane Geometry.

The solution of numerical problems and of simple original exercises; as much as is contained in the recent American text-books.

The student should be required to state definitions clearly, whether in the language of the text-book or not, and in solving a problem or proving a proposition he should be able to prove every statement made. All figures should be constructed by the student with strict accuracy, on correct geometrical principles, using rule and compass; and this should be persisted in until it can be done with ease. Pains should be taken that original demonstrations be given in good form. Besides oral recitations the student should be required carefully to write out his own demonstrations.

Physical Geography.

The work in the text-book is sufficient. No more

than one year should be given to it, and, if possible, practical illustrations ought to be devised for such things as artesian wells, geysers, etc.

History.

The Student ought to master the main facts in the history of Greece and Rome, and should have a pretty clear conception of the condition of life in ancient times. If possible, he ought to read half a dozen books, either history or historical novels, which will tend to make the concepts clear to him. Dates are not so important as general notions of cause and effect.

Physiology.

The ground covered by the text-book is sufficient if the work is well done. The pupil ought to dissect a small animal like a cat with some care, and the teacher ought to make hygiene an important part of the course.

Civil Government.

The text-book ought to be finished, and the pupil should have a clear notion of the forms and principles of the United States government and the government of his own state. The more important parts of the constitution of the United States ought to be learned by heart. The state text-book ought to be supplemented by a few works of reference.

Botany,

The pupil ought to learn to analyse easy flowers and should make an herbarium of about fifty specimens. A good text-book ought to be used and throughly mastered.

English Grammar.

The work in English grammar should consist mostly

in the analysis and parsing of difficult constructions. The state text-book gives about the required amount and kind of work. The sentences to be analysed should be selected from classic English literature. Only a small part of the time of the class ought to be given to diagraming sentences.

English Classics.

The work in English classics ought to be mainly the reading of the productions of good writers. These can now be obtained in a form so cheap that there is no excuse for their absence from any schoolroom. The use of formal reading books above the eighth grade is for the most part a waste of time for which there is no excuse. The pupil should read the classics under the supervision of the teacher at the rate of about one a month, taking Julius Cæsar as typical in length. There should be regular recitations upon the classics. The teacher should prepare many questions for each recitation, and the pupils should be required to write frequent essays upon the characters, the thoughts, and the structure of the work which they are reading. The work in English classics should be the most difficult and at the same time the most attractive in the school curriculum. The formal study of the history of English literature is nearly worthless in the ninth and tenth grades. A few facts ought to be learned incidentally, but the teacher who devotes the time of his class to memorizing names and dates is falling far short of his duty. The history of literature is of no consequence in school except when it is subordinated to the study of literature itself. The state university would

gladly send free to teachers lists of desirable works for children to read in the ninth and tenth grades with prices and instructions for obtaining them by mail. This work has been too much neglected in our schools.

English Composition.

The work in English composition can be made fruitful only when it is carried on under the minute supervision of the teacher. The state text-book gives the necessary amount. The teacher should supervise the pupils while they are writing their compositions in order to avoid mistakes. It is of small use for him to correct mistakes after they have been made and the pupil has forgotten them. He ought to devote his energies to so interesting the pupils in writing correct English that they will desire to avoid mistakes. This is the way to secure correct composition.

The number of essays written should be very large. The teacher should insist on the use of a good grade of paper, neat penmanship, and some systematic form for the placing of the essay on the page. No slovenly work should be tolerated. Success in teaching composition depends upon minute attention to small details in the first place, and in the second place upon providing pupils with suitable material to write about. The teacher should never ask a pupil to write a composition until he has provided him with something to say. The text-book ought to be thoroughly mastered.

Physics.

A course in physics may give a large amount of valuable information and culture even if the school has little apparatus. It is to be regretted that many districts spend for useless and expensive globes, charts, and the like, sums of money which would admirably equip the school for nature study and for profitable work in physics.

An ingenious teacher can easily arrange apparatus which will illustrate the great principles of physics at little or no expense The university will furnish free information concerning apparatus and methods of teaching physics to any person who asks for it.

Latin.

A two years course in Latin ought to cover some good first book and six books of Cæsar, or the equivalent. After beginning Cæsar students should be encouraged to read rapidly. It is better to give a thorough drill on selected passages at intervals separated by half a dozen pages, than to drill on every passage. The student ought to read enough to acquire a vocabulary and to keep up his interest. This is quite compatible with the most thorough drill in syntax.

B. Admission to the Freshman Class.

It should be the aim of the public schools in every town in the state to extend their courses of study until they can prepare students to enter the freshman year of the state university. The university is most eager to see real high school instruction develop in Oregon and to encourage it the following rule has been adopted:

STUDENTS PRESENTING CREDITS FROM ACCREDITED SCHOOLS SHALL BE ALLOWED THEIR EQUIVALENTS IN THE UNIVERSITY OF OREGON.

The president of the university will gladly answer all inquiries relating to this subject. It is hoped that increasing numbers will apply for advanced standing each year.

Under the above rule graduates from the full courses in the following schools are entitled to the number of

credits indicated. Sixty-two credits admit to the freshman year without conditions: The estimates are based on information furnished during the year 1898-9 and will be revised as the schools advance.

ACCREDITED SCHOOLS.

School.	Credits.	Principal or Sup't.
Albany (Public)	45	J. *M. Martindale*
Ashland (Public)	45	*A. C. Hitchcock*
Ashland (Normal)	62	*Thos. Van Scoy*
Astoria	62	*R. N. Wright*
Baker City	62	*J. A. Churchill, Supt., W. H. Stalker, Prin.*
Bandon	50	*Maud Garfield*
Bishop Scott Acad	62	*Dr. J. Hill*
Brownsville	25	*Allen Calder*
Coquille Col. Ins't.	52	*Rev. Futrell*
Drain Norm. School	50	*J. H. Anderson*
Eugene	30	*E. D. Resler*
Grants Pass	36	*S. W. Holmes*
Halsey	30	*L. A. Alderman*
Harrisburg	30	*Grace Stafford*
Heppner	40 (if Latin is taken)	*W. C. Howard*
Independence	34	*W. H. Powell*
Jacksonville	32	J. *M. Horton*
Junction City	21	W. W. *Allingham*
Klamath Falls	37	*Will S. Worden*
Lafayette	25	*John Blough*
LaGrande	50	*H. Tyree*
Marshfield	50	*F. A. Golden*
McMinnville	30 (if plane geometry is taken)	*W. I. Reynolds*
Medford	34	*N. L. Narregan*
Mt. Tabor	25	*W. W. Sibray*

MONMOUTH (Normal)	73*	*P. L. Campbell, Pres.*
OREGON CITY	45	*L. W. McAdam*
PARK PLACE	40	*J. W. Gray*
PENDLETON	55	*H. L. Talkington*
PORTLAND ACADEMY—including advanced year—	79	*Drs. Wilson & Johnson*
PORTLAND HIGH SCOOL, according to course,	62, 65,	*T. Davis*
SANTIAM ACADEMY	62	*S. A. Randle*
SCIO	15	*T. J. Wilson*
ST. HELENS	20	*Geo. A. Hall*
TAYLOR NORMAL, Cove, for completion of published course	56	*O. M. Gardner*
THE DALLES	45	*John Gavin*
UNION	45	—Latin credits also allowed— *E. B. Conklin*
WASCO	26.	*Prof. Peddicord*

Suggestions for a Course of Study for Secondary Schools.

Students will be received at the university only from schools which earn 30 or more credits. Schools falling below this limit should raise their grade as rapidly as possible. The following four years course of study for the 9th, 10th, 11th and 12th grades will be found a useful guide to teachers and school officers. It will earn 62 credits at the rate of fifteen yearly in the 9th and 10th grades and sixteen yearly in the 11th and 12th grades. The recitations are supposed to be from 30 to 45 minutes long and there are four recitations each day. Only two grades of Latin are given, but there will be sub-freshmen Latin classes at the university for some time to come where this work may be made up. It is a rule of the faculty that when a student has made good preparation in other branches part of his sub-freshman work in foreign languages may count as college work.

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*Mature graduates from the state normal school at Monmouth may entertain a reasonable hope of earning a university degree in three years. They have 57 credits to earn.

Ninth Grade.

FIRST HALF YEAR:—Algebra, physical geography, history of Greece, English classics and composition.

SECOND HALF YEAR:—Algebra, physical geography, history of Rome, English classics and composition.

Tenth Grade.

FIRST HALF YEAR:—Algebra, physiology, history of France, English classics and composition.

SECOND HALF YEAR:—Geometry, history of England, botany, English classics and composition.

Eleventh Grade.

FIRST HALF YEAR:—Geometry, chemistry, history of England, Latin.

SECOND HALF YEAR:—Chemistry, civil government, history of English literature, Latin.

Twelfth Grade.

FIRST HALF YEAR:—Trigonometry, physics, political economy, Latin,

SECOND HALF YEAR:—Physics, advanced history of the United States, advanced English grammar, Latin.

In the above course the work in English classics and composition should be considered of the first importance. It should have a full daily recitation period and especially must students read a large number of works. The university will gladly furnish teachers with information about books and methods for carrying out this work successfully

Preparation equivalent to the first two years of the above course is required for admission to the sub-freshmen class. Equivalents will be accepted to a reasonable extent except in mathematics and English.—[For details upon this point, see p. 15.]

EXAMINATIONS.

Students will be examined for entrance to the university on the first day of the fall term. Applicants for ex-

amination should notify the president of the university about one week before the term opens. The ground covered is sufficiently indicated under "Requirements for admission." Examinations will be held in the president's office and will be in writing.

Students presenting proper certificates from accredited schools are not examined.

Marks.

Written examinations are held in the university during the last week of each semester. Not more than one week may be spent in review of any one branch before the examination in it. Students are marked A, B, C or D according to their excellence in class work and examinations. "A" means "excellent." "B" means "very good." "C" means "good." "D" means "passed."

A student failing to reach the grade "D" in any class must make up such conditions as his instructor may prescribe, but will not be dropped from the class except in certain extreme cases by action of the faculty.

State Diplomas.

Under Senate Bill No. 112, the State Board of Education has determined that all persons making application for state diplomas shall pass an approved examination in the following branches: Book-keeping, composition, physical geography, algebra, English literature, Oregon school laws, general history, and theory and practice of teaching. The examination will be held at the end of each session of the university. The bill is printed below:

SENATE BILL NO. 112.

A BILL for an Act to encourage more thorough preparation of teachers for public school work in the State of Oregon.

Be it enacted by the Legislative Assembly of the State of Oregon:

That all persons who shall complete a required course of study and receive a literary degree therefor in any institution of learning of collegiate or university grade, chartered or incorporated under the laws of this state, and shall have passed such examination thereon as may be designated and approved by the state board of education, shall be entitled to receive a state diploma, as is now authorized by law, and after six years of successful teaching in the state of Oregon shall be entitled to a state life diploma, as now provided by law, when they shall have paid the required fee for said diploma.

Approved, February 20, 1891.

GENERAL INFORMATION.

Registration of Students.

On the Friday of the first week of the first semester, between one and four o'clock, p. m., each student must file a statement of the group selected by him and must specify his prescribed and elective studies for the year. A card will be provided for this purpose which must be signed by his adviser and the instructor for each course. Studies cannot be changed or dropped later than the first week of the fall term, except with the written consent of the student's adviser, the standing committee on studies, and the teacher of the class; and such consent must be filed in the office of the university. Every student before he enters any of his classes must pay his incidental fee.

Directions to New Students.

Upon arriving at the university the new student should call at the president's office in Villard hall, fill out an application blank, learn the name of his adviser and have his credits certified. The adviser will give him all necessary information about board, studies and text-books, and certify to his choice of studies. The student should then return to the office, pay his incidental fee and be registered.

Students wishing to board in the dormitory must obtain their adviser's permission, and have it countersigned by the president.

The Young Men's and Young Women's Christian associations of the university issue an annual "Handbook for Students," which contains much valuable information about the university, the college organizations and college life, points to be observed by new students, and interesting facts about Eugene and vicinity. It is valuable especially to new students, and is sent free upon application with one-cent stamp to College Y. M. C .A. or Y. W. C. A., Eugene, Oregon.

The Christian associations render much assistance to new students during the opening days in September by meeting them at the trains, by conducting information and employment bureaus, book exchanges, and keeping lists of rooms and boarding places. The new student may save much time and labor by availing himself or herself of these conveniences, which are freely and gladly given.

Yearly Certification of Credits.

Each student will receive at the end of the college year a card certifying to the credits he has earned during the year.

Exercises of the Semester.

Each student is expected to have seventeen exercises weekly. One exercise must be in English composition, and there may be one in elocution, hygiene, music or drawing. Mature students who are strong in mind and body may often obtain permission to take more than seventeen exercises weekly. The time spent in college may be materially shortened in this way under favorable conditions.

Regular students in mining and engineering must follow the courses laid down in the catalogue. Two hours of laboratory work, work in the machine shop or drawing are considered the equivalent of one recitation.

Final Marks.

Class marks are taken into account in estimating final marks. Students will receive zero class marks for excusable absences from recitations but they are allowed to make up the work and thus raise their marking.

GRADUATION.

The university grants the first degrees Bachelor of Arts and Bachelor of Science. In the school of mines and engineering it confers the titles Mining Engineer Civil Engineer and Electrical Engineer, with the degree Bachelor of Science.

It requires regularly four years beginning with the freshman to earn each of these degrees, and the number of credits to be earned is 68.

Honors.

Honors will be assigned to graduates as follows:

Students shall graduate *Summa cum laude* when at least half their credits rank A and none rank below B. *Magna cum laude* when no credits rank below B. *Cum laude* when at least half their credits rank B and none below C. When a student's credits rank lower than any of the above he graduates *rite*.

Prizes.

The following prizes are offered annually for proficiency in oratory:

THE FAILING PRIZE, not to exceed one hundred and fifty dollars, is the income from a gift of twenty-five

hundred dollars made to the university by Hon. Henry Failing, of Portland. It is awarded "to that member of the senior class in the Classical, the Scientific, or the Literary Course prescribed by the university, or such courses as may, at the time, be substituted for either of said courses, who shall pronounce the best original oration at the time of his or her graduation."

THE BEEKMAN PRIZE, not to exceed one hundred dollars, is the income from a gift of sixteen hundred dollars made to the university by Hon. C. C. Beekman of Jacksonville. It is awarded under the same conditions as the Failing prize, for the second best oration.

The award of the prizes is made as follows:

"The faculty of the aforesaid University shall select, at each commencement exercise, three disinterested persons from different portions of the state of Oregon, if possible, or from other states, or from this state and other states, excluding all persons connected with said University excepting members of the said Board of Regents; and said three persons selected by said Faculty shall act as judges, who, after hearing the orations pronounced by the members of the graduating class, shall determine what member thereof has pronounced the best oration, and also what member thereof has pronounced the second best oration, and to these members shall be awarded respectively the above named Failing and Beekman Prizes. The judges, in deciding what members have pronounced the best and second best orations, shall take into consideration the originality of the subject matter, the style of treatment, rhetorical excellence and the manner of delivery. And no oration shall be considered in the award of said prizes unless delivered without the aid of manuscript.

"Prior to the delivery of the orations for said prizes, the president of the university, or some one under his direction, shall publicly announce to the judges the terms and conditions upon which the awards are to be made, and the majority of the judges shall be sufficient to award either of said prizes."

Awards of the Failing Prize.

10,	Edward H. McAlister,	Eugene.
11,	S. Etta Levis,	Harrisburg.
12,	Lenn Stevens,	Eugene.

'93,	Carey F. Martin,	Eugene.
'94,	Irving M. Glen,	Dayton.
'95,	Julia G. Veazie,	Dallas.
'96,	H. S. Templeton,	Halsey.
'97,	Clinton E. Woodson,	Currinsville.
'98,	H. S. Murch,	Coburg.

Awards of the Beekman Prize.

'90,	Agnes M. Green,	Seattle.
'91,	Veina E. Adair,	Eugene.
'92,	Fred S. Dunn,	Eugene.
'93,	Thomas M. Roberts,	The Dalles.
'94,	Elias M. Underwood,	McMinnville.
'95,	Benetta Dorris,	Eugene.
'96,	V. V. Johnson,	Eugene.
'97,	Ida Noffsinger,	McCoy.
'98,	Clyde V. Fogle,	Eugene.

Further Regulations.

The Senior class has steadily increased in members for the last few years, and, to prevent the inconvenience of too many orations on commencement day, while still preserving to nearly all eligible candidates for degrees the right to compete for the Failing and Beekman prizes, the faculty has enacted the following regulations:

Candidates for the B. A. or B. S. degrees whose average scholarship during their Sophomore and Junior years has not fallen below C, may compete for the Failing and Beekman prizes if they have complied with the following conditions: Two years residence at the university; the junior and senior courses in orations; two courses in elocution above course 98.

Three typewritten copies of the competing orations, signed with an assumed name (the real name being filed at the same time in a sealed envelope) must be in the hands of the secretary of the faculty on the first Monday in April. He submits them to a committee of three, not living in Eugene, appointed by the president of the university and the professors of English and Oratory, who choose the best fifteen, basing their choice on originality of subject matter, style of treatment, and rhetorical excellence.

A committee of five appointed from the faculty by the president of the university is to hear these fifteen orations delivered in

Villard Hall on the Saturday in May nearest May 1, and select not more than six excelling in composition and manner of delivery, paying rather more attention to the delivery.

These six, or fewer, orations are to be delivered on commencement day in competition for the prizes. They are limited to 1200 words.

Final Papers.

After the year 1897–98 all candidates for degrees will file with the secretary of the faculty on the first Monday in April a discourse containing not more than 1200 words. Unless the discourse is an oration to be delivered in competition for the Failing and Beekman prizes, the student may select his subject with the approval of the president of the university and at the head of the department in which his principal studies lie. The subject must be submitted to the head of the department by December 1.

Scholarships in the School of Medicine.

The following resolution has been adopted by the faculty of the University School of Medicine:

Resolved, That, until otherwise ordered, this department hereby establishes and will maintain one scholarship in the school of medicine to which only graduates of the school of arts or science of the university of Oregon shall be eligible and upon the following conditions:

At the time of entrance upon the medical course in this department the applicant shall have received his degree of B. A. or B. S. within two years immediately preceding. He shall be recommended by the majority of the faculty of the arts and science department as being worthy; and if more than one applicant shall apply the same year for the benefit of the scholarship, the person recommended must stand higher than any other applicant of his year in his graduation marks or credits.

Only one student shall be permitted to enjoy the benefit of the scholarship, which shall be known as "The University Scholarship," at any time. Students under the scholarship hereby created shall be exempt from the payment of all fees excepts matriculation, $5, demonstrator's

$10, for each of two years; cost of dissecting material and examination fees per catalogue. Two half scholarships have also been established in the Medical School.

Expenses.

The university charges a yearly incidental fee of $10, payable at the opening of the fall term by each student.

The cost of living at the dormitory is $2. 50 per week. This includes board, heat, light and lodging; but does not include bed-clothes, mattresses and towels.

The cost of living in the town of Eugene varies from $3 to $5 per week. Many students rent rooms and board themselves at a very small cost. A fair estimate of the yearly expense is from $125 upwards.

The expense for books varies from $5 per year upwards. There is no change of studies during the year so that students need buy only one set of books, with few exceptions.

A small deposit is required from each student in the department of chemistry. From this at the end of the year the actual cost of breakage, injuries to apparatus, and materials consumed is deducted and the balance returned.

Remunerative Employment.

The university employs students for janitors; several young men earn their board by services in the dormitory; other students earn money in the printing office; and still others increase their income by doing clerical work in the office or laboring in the machinery department. While it is not possible to promise work to all applicants, the university strains its slender resources to help deserving students and a number of young men are now earning

their education by their daily labor in the service of the university.

BUILDINGS AND PLANT.

The Library.

The university library occupies the lower floor of Collier Hall, and contains at present about seven thousand volumes.

The Dewey system of classification has been adopted and the books are shelved in a continuous order. Relative location and alphabetical order are employed, the books being arranged under the following general heads: General Reference; Philosophy; Religion; Sociology; Philology; Natural Science; Useful Arts; Fine Arts; Literature; History.

A part of the books was bought at a cost of one thousand dollars by Mr. Henry Villard. The annual sum coming from the Villard fund for the purchase of books for the library is four hundred dollars. The library is also a depository of all documents published by the general government at Washington.

Teachers in the university, students and resident graduates are entitled to draw books from the library. To all other persons it is a reference library.

Students may draw three volumes at a time, to be retained if desired for two weeks, with the privilege of one renewal.

The library receives many American and foreign literary and scientific periodicals. The collection of reviews and periodicals, both current and bound, is especially valuable. Poole's and other indexes of general literature are at hand to aid reference.

The library is open every day, during term time, from 9 a. m. to 3 p. m., except Saturdays and Sundays.

Department Libraries.

For the effective teaching of most subjects a working library is essential. The departments of the university are accumulating special libraries as circumstances permit.

Deady Hall.

Deady Hall was erected by the citizens of Lane county and presented to the state. It was named in honor of the late Matthew P. Deady, the first president of the board of regents, and for many years a constant benefactor of the university. It is three stories high besides the basement, and contains the chemical and physical laboratories, the biological laboratory, and the halls of the literary societies.

Villard Hall.

Villard Hall was named in honor of Henry Villard, an early friend of the university. In this building are recitation rooms, the president's office, a large audience room and Professor Condon's great collection of minerals, fossils and natural history specimens.

The Dormitory.

The men's dormitory, erected by the munificence of the state, accommodates about ninety students. The rooms are sufficiently large to furnish quarters for two students each, and are well lighted and ventilated. The whole building is heated by steam, and lighted by electricity. It consists of two wings entirely separated from each other. Each wing has a reception room, intended for the accommodation of visitors.

The price of board in the dormitory, including heat, light and lodging, is $2.50 per week.

Collier Hall.

Collier Hall with the adjacent grounds was purchased by the regents in 1895. The lower floor is used for the library; the upper floor is rented to the president of the university for his residence.

The Observatory.

The astronomical observatory is situated near the library. It is supplied with a good transit instrument and other useful astronomical apparatus.

The Gymnasium and Engine Room.

The gymnasium is located at the east end of the campus. It is supplied with all necessary apparatus for exercise and class work. The basement has been excavated to make room for the engines and machinery employed for university purposes.

The Light and Water Plant.

The university operates an economical light and water plant which supplies the needs of the dormitory and other buildings at a small expense. It also furnishes fine laboratory facilities to students of applied mathematics and engineering.

The University Press.

The university owns and operates an effiecient printing press exclusively for university work. It affords to students of journalism laboratory facilities, and furnishes remunerative employment to several deserving young men who are educating themselves. The catalogue, Bulletin and Sources of Oregon History are printed by student labor on the university press.

SUB-FRESHMAN COURSES.

The university has discontinued its business department, its department of pedagogy and the greater part of its preparatory courses. This enables the faculty to devote most of their energy to true college instruction and has increased the efficiency of the institution. The student body is diminished in numbers by the change, for the time being, but it has gained in maturity and scholarship so much that the loss in numbers is not worth mentioning.

Until the higher schools of the state have attained a secure position and advanced their grade of instruction somewhat, it will be necessary for the state university to offer sub-freshman courses. This work is for the accommodation of students who have not been able to prepare themselves for the freshman year in the home schools. Students should always make full preparation at home when they can. It is seldom wise for a student to enter the university until he has learned all that his home school can teach him.

GREEK LANGUAGE AND LITERATURE.

Professor Straub,

[If a student begins Greek after earning 62 credits in other subjects, it will count as college work.]

25—Students begin Greek. No attempt is made to cover much ground. It is a question of how well, rather than how much. Besides the accidents, a through drill is given in indirect discourse, conditional clauses, participial constructions, etc. This year contains nearly all the drudgery of the Greek course.

First Semester: Gleason & Atherton's First Greek Book. Ginn & Co's Classical Atlas

Second Semester: Harper & Wallace's Xenophon's Anabasis, Book 1. Goodwin's Greek Grammar.

Professor Straub, 5 credits, 1, 2, 3, 4, 5—11, a. m.

26.—In this course, while grammatical constructions are still kept in view, the student's efforts are directed toward a good vocabulary of the most common Greek words, such as is found in H. and N.'s Anabasis. One recitation in Greek history and ancient geography is given each week.

First Semester: Xenophon's Anabasis, Books II, III, IV. Mahaffy's Old Greek Life. Required reading: Becher's Charicles.

Second Semester: Cebes' Tablet, Parsons. Homer's Iliad, Books I, II, III, Seymour. Fyffe's History of Greece. Special study of Greek Prepositions, Adams. Four times weekly.

Professor Straub, 4 credits, 1, 2, 4, 5—1, p. m.

27.—First Semester: Iliad, Books IV, V, VI. Rapid reading of selections from first ten books of the Odyssey, Perrin & Seymour. Jebb's Homer. Required reading, Gladstone's Homer; Tarbell's History of Greek Art.

Second Semester: Selections from Johnson's Herodotus; Flagg's Anacreontics; Whitson's Orations of Lysias; Tarbell's Philippics of Demosthenes; New Testament Greek. Four times weekly.

Professor Straub, 4 credits, 1, 2, 4, 5,—10, a. m.

132. Murray's Mythology: Once a week throughout the year.

Professor Straub, 1 credit, 3--10, a. m.

LATIN.

Professor Dunn.

[If a student begins Latin after earning 62 credits in other subjects, it will count as college work.]

18—Latin Lessons. Viri Romae, or Nepos, or Cæsar's Gallic War begun.

Course 18 is concerned entirely with the fundamental principles of the language. There are daily exercises in

composition, both of English into Latin and Latin into English. After a half year has been thus consumed, the class will take up some easy text, Nepos or Cæsar (selections), or Viri Romae, at the discretion of the instructor.

Text-books: Coy's Latin Lessons (American Book Co.); D'Ooge's Viri Romae (Ginn & Co.); Roberts' Nepos (Ginn & Co.); Allen & Greenough's New Cæsar (Ginn & Co.); Bennett's Latin Composition (Allyn & Bacon); Allen & Greenough's Latin Grammar (Ginn & Co.).

Professor Dunn, 5 credits, 1, 2, 3, 4, 5—8 a. m.

19. Cæsar's Gallic War continued or begun. Cicero's Orations begun. Composition and sight reading.

Either the four first books of Cæsar's Gallic War or their equivalent in selections from the entire seven books will be read, with practice in sight-reading from Cæsar or some easy text. Lessons in composition will be continued at stated intervals. Cæsar will be followed by Cicero's orations, with the same accompaniments as in Cæsar. Two orations will be read.

Text-books: Allen & Greenough's New Cæsar (Ginn & Co.); Allen & Greenough's New Cicero (Ginn & Co.) Composition, grammar, and short texts as in course 18.

Professor Dunn, 4 credits, 2, 3, 4, 5—9 a. m.

20.—Cicero's Orations continued; Sallust's Jugurthine War, or Vergil's Eclogues, or Ovid's Metamorphoses (selections). Composition and sight-reading continued.

Six or seven orations will be covered in reading Cicero, including the four against Catiline. The remainder of the year will be devoted to the reading of Sallust's Jugurtha, or Latin poetry may then be begun, with Vergil's Eclogues, or selections from Ovid's Metamorphoses. The reading will be accompanied as before by exercises in composition.

Text-books: Allen & Greenough's New Cicero (Ginn & Co.); Herbermann's Sallust (Sanborn & Co.); Vergil's Aeneid and Eclogues, Allen & Greenough's new edition (Ginn & Co.) Kelsay's Ovid (Allyn & Bacon); other texts as specified under courses 18 and 19.

Professor Dunn, 4 credits 1, 2, 3, 4—10 a. m.

138.—Vergil's Aeneid: Cicero's de Senectute; Ovid's Metamorphoses (optional). Sight reading and composition continued.

Six books of the Aeneid will be read with perhaps selections from the six remaining books, or from the Eclogues, or from Ovid's Metamorphoses.

Text-books: Vergil and Ovid as in course 20. Bennett's De Senectute (Sanborn & Co.).

Professor Dunn, 4 credits, 1, 2, 4, 5, —11 a. m.

GERMAN.

Professor Schmidt.

[If a student begins German after earning 62 credits in other subjects, it will count as college work.]

31.—Elementary German. Joynes-Meissner's German Grammar, German composition; translation of easy prose and poetry. Special attention is paid to systematic training in pronunciation. Mærchen und Erzæhlungen (Guerber;) Volkmann's Kleine Geschichten; Novelletten; Zschokke's Der zerbrochene Krug; Storm's Immensee, etc. German Conversation.

Professor Schmidt, 5 credits 1, 2, 3, 4, 5—10 a. m.

32.—Advanced German. Lessing's Minna von Barnhelm: Schiller's Wilhelm Tell; Goethe's Hermann und Dorothea; Grillparzer's Sappho.—Hauff's Das kalte Herz; Heyse's Das Maedchen von Treppi; Wildenbruchs' Das edle Blut: Chamisso's Peter Schlemihl, etc. Ad-

vanced German Grammar and Composition; Syntax; German conversation (Meissner) throughout the year.

Professor Schmidt, 4 credits, 1, 2, 4, 5—11 a. m.

33.—The German Drama of the Classic Period. Lessing's Nathan der Weise; Emilia Galotti; Schiller's Wallenstein; Maria Stuart; Jungfrau von Orleans; Goethe's Egmont, Torquato Tasso, Iphigenie, Faust.—Writing of essays in German. History of German Literature. A limited number of lectures are given. German conversation; practice in writing German is afforded by means of dictation or similar exercises.

Prfessor Schmidt, 4 credits, 1, 2, 4, 5—2 p. m.

FRENCH.

Professor Schmidt.

[If a student begins French after earning 62 credits in other subjects it will count as college work.]

36.—Elementary French. Whitney's Practical French Grammar, Parts I. and II., with written exercises and systematic training in French pronunciation on the basis of Matzke's Primer on French Pronunciation; Le Francais Pratique, Bercy; Super's French Reader; Contes de Fees, easy classic French fairy tales, Joynes; Historiettes Modernes, II., Fontaine; Souvestre, Un Philosophe sous les Toits.

Professor Schmidt, 5 credits. 1, 2, 3, 4, 5—8 a. m.

37.—Advanced French. Modern French; Novels George Sand's La Mare au Diable, Alfred de Musset, Pierre et Camille; Halevy, L'Abbe Constantin; Drama; Racine's Athalie, Victor Hugo's Ruy Blas, Augier's Le Gendre de Monsieur Poirier, Labiche's La Poudre aux Yeux. Fables; La Fontaine. Lectures; Faciles Pour l'Etude du Francais (Bercy.) Syntax and composition,

Grandgent's Short French Grammar, French Conversation.

Professor Schmidt, 4 credits, 1, 2, 4, 5—9 a. m.

MATHEMATICS.

On application the announcement containing full information concerning the requirements for admission, courses of instruction, description of models and apparatus will be furnished.

1. 2.—Algebra. The requirements embrace the following subjects: Factors, common divisors and multiples, fractions, involution, including the binomial theorem for positive integral exponents; evolution, theory of exponents, radicals and equations involving radicals, ratio and proportion, elementary logarithms; the ordinary methods of elimination, and the solution of numerical and literal equations of the first and second degrees, with one or more unknown numbers, and of problems leading to such equations: as much as is contained in Lilley's Elements of Algebra or any text-book of equal grade.

Plane Geometry. The solution of numerical problems and of simple original exercises; as much as is contained in Phillips & Fisher's Abridged Geometry.

The student should be required to state definitions clearly, whether in the language of the text-book or not and in solving a problem or proving proposition he should be able to prove every statement made. All diagrams should be constructed by the student with strict accuracy, on correct geometrical principles, using rule and compass; and this should be persisted in until it can be done with ease. Pains should be taken that original demonstrations be given in good form. Besides oral recitations the student should be required carefully to write out his own demonstrations.

4.—Solid Geometry. Prescribed for all degrees.

This course is given during the second semester. Textbook: Phillips & Fisher's Abridged Geometry.

Professor Lilley, 2 credits, 1, 2, 4, 5—9 a. m.

5. Plane Trigonometry and Analytic Geometry.

Plane Trigonometry. An elementary course with Phillips' & Strong's Elements of Trigonometry as the basis of instruction.

Plane Analytic Geometry. An elementary course with Nichols' Analytic Geometry as the basis of instruction. The subjects taught in this course are absolutely necessary to the student who means to continue the study of mathematices or take up advanced physics.

Professor Lilley, 5 credits, 10 a. m.

ENGLISH COMPOSITION AND LITERATURE.

Professor Carson.

The following courses in composition and literature or their equivalent are prescribed for all degrees.

144.—FOURTH YEAR ENGLISH COMPOSITION. A special course intended for students now registered. It will not be given after the year 1899—1900. Text book: Buehler's Practical Exercises in English.

Professor McElroy, 1 credit, 1—1 p. m.

139.—FOURTH YEAR ENGLISH LITERATURE. A special course for students now registered. Students who have earned 62 credits in three years will not take this course. It will not be given after 1899-1900. Text book Shaw. Works read: Shakespeare's Macbeth, Caryle's Essay on Burns, selected poems from Burns, selected poems from Wordsworth, Coleridge's Ancient Mariner, Macaulay's Essay on Pitt, Eliot's Silas Mariner.

Professor McElroy, 2 credits, 2, 4—9 a. m.

The following books are prescibed for entrance examinations for the freshman courses in English composition and literature:

In English composition, the books used in the high schools of the state.

In English literature, the following books prescribed by the commission of New England colleges:

1899 { **On Conciliation with America, Burke.**
Paradise Lost, Books I., II.
Macbeth, Shakespeare.
Macaulay's Essay on Addison.

1900 { **On Conciliation with America, Burke.**
Milton's Paradise Lost, Books I., II.
Macbeth, Shakespeare.

1901 { **On Conciliation with America, Burke.**
The Flight of a Tartar Tribe, De Quincey.
Macbeth, Shakespeare.
The Princess, Tennyson.

CHEMISTRY.

Professor Lachman.

13.—Elementary Chemistry. Prescribed for entrance to the university in all courses. Two lectures and four laboratory hours per week. Remsen's Briefer Course will be used as a text book. Special attention is paid to the general side of the subject, and to the applications of chemistry to daily life.

Professor Lachman and Mr. Plumb, 4 credits.
Lectures 1, 3—11 a. m.

GENERAL REGULATIONS PERTAINING TO THE CHOICE OF STUDIES.

1. The following table shows all allowable selections of language credits for a degree; no degree will be granted without the language work represented by one of the combinations:

Greek,	13	credits with	Latin,	17	credits.
Greek,	13	" "	French,	9	"
Greek,	13	" "	German,	13	"
Latin,	17	" "	French,	9	"

Latin,	17	"	"	German,	13	"
German,	13	"	"	French,	9	"

In computing language credits no substitutions will be allowed.

2. The following college courses are prescribed for all degrees: 49 English; 50 English; 56 English literature; 60 Rhetoric; 64 Ethics; 63 History; 44 Economics; 9 Physics.

Every student must include in his preparation for the freshman year the following courses or their identical equivalents: 104 English; 144 English; 102 English literature; 139 English literature; 2 algebra; 3 geometry; 13 chemistry.

4. In arranging his courses each year the B. A. student must take all his available sub-freshman and language work first; then if he has vacant hours, he must choose work for them in the following order: English, principal subject of his group, history, literature, physics. He must observe this rule from year to year; and he must also fill additional vacant hours with prescribed courses in preference to elective courses until his prescribed courses have all been worked off.

5. The B. S. student must take all his available sub-freshman and language work first. His vacant hours are then to be filled in the following order: mathematics, physics, principal subject of his group, English, history. Hours which are not filled by this rule from year to year must be filled with prescribed in preference to elective courses until his prescribed courses have all been worked off.

6. It is assumed that a student will have worked off nearly all of his prescribed courses by the time he has earned 34 college credits. When he has room on his programme for 10 elective credits he may, with the consent of the president of the university, select for his adviser the head of the department in which he intends to

take the greater part of his subsequent courses. He must not in any year take more than 8 credits in any one department, nor select his work from more than five departments.

7. Music and free hand drawing have been made elective studies. One credit in each may be earned yearly for two years.

GROUPS.

[For the work of the junior and senior years, which is elective, see the special departments.]

Until he has earned 34 college credits, that is 96 credits above the eighth grade, the student must limit his choice of courses to those included in some one of the following groups. He is free to select the group which suits best his tastes and aptitudes. The courses of each group will prepare the student to study profitably the corresponding special subject during his junior and senior years.

A1. Latin with Greek.

Freshman: 21 Latin, 3; 28 Greek, 3; 9 physics, 3; 155 psychology, 3; 65 history, 3; 49 English, 1; elective, 1.

Sophomore: 22 Latin, 3; 29 Greek, 3; 60 rhetoric, 4; 44 economics, 3; 50 English, 1; elective, 3.

A2. Latin with German.

Same as A1, except that 34 German and 35 German replace 28 Greek and 29 Greek.

A3. Greek with French.

Same as A1, except that 38 French and 39 French replace 21 Latin and 22 Latin.

A4. German with Anglo-Saxon.

Freshman: 34 German, 3; 55 Anglo-Saxon, 3; 9 physics, 3; 155 psychology, 3 or 103 biology, 3; 63 history, 3; 49 English, 1; elective, 1.

Sophomore: 35 German, 3; 177 Anglo-Saxon, 3; 60 Rhetoric, 4; 64 ethics, 3; 44 economics, 3; 50 English, 1.

A5. English Literature.

Freshman: 56 English literature, 3; 55 Anglo-Saxon, 3; 9 physics, 3; 155 psychology or 103 biology; 63 history, 3; 49 English, 1; elective, 1.

Sophomore: 60 rhetoric, 4; 177 Anglo-Saxon, 3; 64 ethics, 3; 44 economics, 3; 50 English, 1; elective, 3.

A6. English.

Freshman: 180 English, 3; 56 English literature, 3; 9 physics, 3; 55 Anglo-Saxon, 3; 63 history, 3; 98 elocution, 1; elective, 1.

Sophomore: Same as in A5.

A7. Logic.

Freshman: 6 calculus, 5; 9 physics, 3; 155 psychology; 3; 157 logic, 3; 49 English, 1; elective, 2.

Saphomore: 64 ethics, 3; 137 logic, 3; 44 economics, 3; 106 astronomy, 3; 50 English, 1; elective, 4.

A8. History and Public Law.

Freshman: 63 history, 3; 9 physics, 3; 155 psychology, 3; 103 biology, 3; 56 literature, 3; 49 English 1; elective, 1.

Sophomore: 64 ethics, 3; 44 economics, 3; 60 rhetoric, 4; 106 astronomy, 3; 50 English, 1; elective, 3.

A9. Economics and Sociology.

Freshman: 63 history, 3; 9 physics, 3; 155 psychology, 3; 56 literature, 3; 49 English, 1; elective, 4.

Sophomore: 60 rhetoric, 4; 103 biology, 3; 50 English, 1; 64 ethics, 3; elective, 6 (economics.)

A10. Philosophy.

Freshman: 9 physics, 3; 106 astronomy, 3; 155, psychology, 3; 56 literature, 3; 49 English, 1; 63 history, 3; elective, 1.

Sophomore: 15 chemistry , 4; 60 rhetoric, 4; 64 ethics, 3; 157 logic, 3; 50 English, 1; elective, 2.

A11. Mathematics.

Freshmvn: 6 calculus, 5; 9 physics, 3; 155 psychology, 3; 56 literature, 3; 49 English, 1; elective, 2.

Sophomore: 7 differential equations, 5; 106 astronomy, 3; 63 history, 3; 60 rhetoric, 4; 50 English, 1; elective, 1.

A12. Psychology.

Freshman: 9 physics, 3; 106 astronomy, 3; 155 psychology, 3; 157 logic, 3; 56 literature, 3; 49 English, 1; elective, 1.

Sophomore: 45 psychology, 5; 63 history, 3; 103 biology, 3; 64 ethics, 3; 50 English, 1; elective, 2.

A13. Philology.

Freshman: 55 Anglo-Saxon, 3; 34 German, 3; 56 literature, 3; 63 history, 3; 190 philology, 1; 49 English, 1; elective, 3.

Sophomore: 60 rhetoric, 3; 177 Anglo-Saxon, 3; 35 German, 3: 63 history, 3; 191 philology, 1; 50 English, 1; elective, 2.

GROUPS WHICH LEAD TO THE DEGREE B. S.

S1. Physics.

Freshman: 9 physics, 3; 6 calculus, 5; 103 biology, 3; 15 chemistry, 4; 49 English, 1; elective, 1.

Sophomore: 7 differential equations, 5; 10 physics, 5; 182 chemistry, 5; 50 English 1; elective, 1.

S2. Electrical Engineering.

Freshman: 9 physics, 3; 6 calculus, 5; 77 (mechanical) drawing, 3; 107 practical mechanics, 2; 56 literature, 3; 49 English, 1.

Sophomore: 15 chemistry, 4; 7 differential equations, 5; 108 practical mechanics, 4; 184 electrical testing and measurements, 4.

S3. Chemistry.

Freshman: 6 calculus, 5; 9 physics 3; 15 chemistry, 4; 60 history, 3; 49 English, 1; elective, 1.

Sophomore: 10 physics, 5; 182 chemistry, 5; 56 literature, 3; 103 biology, 3; 50 English, 1.

S4. Mining Engineering.

Freshman: 15 chemistry, 4; 9 physics, 3: 6 calculus, 5; 67 mechanical drawing, 3; 107 practical mechanics, 2.

Sophomore: 182 chemistry, 5; 108 practical mechanics, 4; 79 surveying, 3; 189 grapic statics, 2; 78 descriptive geometry, 3.

S5. Applied Mathematics.

Freshman: 6 calculus, 5; 9 physics, 3; 77 mechanical drawing, 3; 63 history, 3; 49 English, 1; 190 trigonometrical applications, 3; elective, 1.

Sophomore: 7 differential equations, 5; 44 economics, 3; 106 astronomy, 3; 50 English, 1; 189 graphic statics, 2; 78 descriptive geometry, 3.

S6. Civil Engineering.

Freshman: 9 physics, 3; 6 calculus, 5; 77 mechanical drawing, 3; 107 practical mechanics, 2; 56 literature, 3; 49 English, 1.

Sophomore: 79 surveying, 3; 78 descriptive geometry, 3; 189 graphic statics, 2; 108 practical mechanics, 4; 15 chemistry, 4; 50 English, 1.

S7. Biology.

Freshman: 9 physics, 3; 103 biology, 3; 56 literature, 3; 63 history, 3; 155 psychology, 3, or 148 ethnography, 3; 49 English, 1; elective, 1.

Sophomore: 15 chemistry, 4; 60 rhetoric, 4; 44 economics, 3; biology, 5; 50 English, 1.

S8. Preliminary Medical.

Freshman: 9 physics, 3; 182 chemistry, 4; 103 biology, 3 or 67 biology, 2; 49 English, 1; 56 literature, 3; elective, 1.

Sophomore: 63 history, 3; 64 ethics, 3; 69 biology, 3; 145 biology, 4; 110 biology, 2; 50 English, 1; 145 biology, 2 [opt.]

S9. Geology.

Freshman: 9 physics, 3; 148 ethnography, 3; 103 biology, 3; 106 astronomy, 3; 183 mineralogy, 2; 49 English, 1; elective, 2.

Sophomore: 15 chemistry, 4; 60 rhetoric, 4; 64 ethics, 3; 155 psychology, 3; 50 English, 1; elective, 1.

DESCRIPTION OF THE COURSES.

MATHEMATICS.

Professor Lilley.

127.—HIGHER ALGEBRA. The course is intended for students who wish to make rapid progress in their subsequent mathematical studies. The student who means to continue the study of pure and applied mathematics is strongly advised to take this course after finishing course 5. The course is based on the methods of Lilley's Higher Algebra.

3 credits. 1, 2, 5—11 a. m.

6.—CALCULUS. An elementary course with Osborne's Differential and Integral Calculus as the basis of instruction.

5 credits. 8 a. m.

7.—DIFFERENTIAL EQUATIONS. An elementary course with Johnson's Differential Equations as the basis of instruction. Requires courses 5 and 6, or preferably courses 5, 127, 6, 2, and 11.

5 credits. 2 p. m.

8.—Solid Analytic Geometry. An elementary course with Smith's Solid Geometry as the basis of instruction. Requires courses 5, or preferably 5, 127 and 6.

3 credits. 1, 3, 5—3 p. m.

1. Theory of Equations and Determinants. An elementary course with Chapman's Theory of Equations as the basis of instruction. Requires course 127.

3 credits.

2. Plane and Solid Analytic Geometry. An advanced course with Salmon's Conic Sections and Geometry of three Dimensions as the basis of instruction. Requires courses 5 and 6, or preferably 5, 127, 6, 8 and —

3 credits.

11. Calculus. An Advanced course with Todhunter's and Price's Differential and Integral Calculus as the basis of instruction. Requires courses 5, 6 and 8, or preferably 5, 127, 6, 8 and 1.

3 credits.

66.—Modern Analytic Geometry. An elementary course based on the methods of Whitworth and Clebsch. Requires courses 5, 6 and 8, or preferably 5, 127, 6, 8, 1 and 2.

3 credits.

Courses 5 and 6 are required for the degree B. S.

Courses 5, 6, 7, 8 and 127 are requirad for advanced physics, advanced mathematics, electricity and magnetism, and for the engineering courses.

It is the aim of the department to give students a thorough working knowledge of mathematics and to train them for advanced work in the modern development of analytic geometry, differential equations, deter-

minants, theory of probability and least squares; also to give extended courses in modern higher algebra—including quantics, invariants and covariants; theory of functions; elliptic functions; quaternions and vector-analysis. Courses will be provided in these subjects for students who have had sufficient training to take them.

A collection of models and apparatus for illustrating the study of lines, surfaces, solids of revolution and systems in space has been made.

For full information concerning the opportunities of mathematical study at the university send for the announcement of courses of instruction in mathematics.

APPLIED MATHEMATICS.

Professor McAlister.

Professor McAlister gives all the courses.

106.—General Astronomy. A course embracing a brief historical sketch of the science, the fundamental principles, with such problems as yield to elementary methods of treatment, and an exposition of the more important facts known in reference to the bodies of the solar system, the stars, star clusters and nebulae; tides as cosmogonic agencies; and a comprehensive account of the Nebular Hypothesis. Observatory work will be carried on as the weather permits. Not open to students below the sophomore year.

3 credits, 1, 2, 5—1 p. m.

73.—Spherical and Practical Astronomy. Lectures, observatory work, and computations. The observatory is provided with a good transit instrument, a sidereal clock, and a sextant with artificial horizon. The transit instrument is so arranged that it may also be used as a a sight-seeing telescope.

3 credits.

159.—The Potential Function. General theory of the potential function, with numerous practical applications. For students taking astronomy as a major, the subject will be developed with special reference to the attraction of gravitation, other forces being made subsidiary, while students making physics a major, by confining their attention largely to the forces which they expect to investigate, will find this course an advantage in enabling them to take up with less difficulty and more profit the mathematical theory of electricity and magnetism, and other branches of mathematical physics. A knowledge of differential and integral calculus, differential equations, and composition and resolution of forces is presupposed.

2 credits.

181.—Elements of Celestial Mechanics. A course developing fundamental principles and theorems of the subject, and designed as an introduction to the following course, or as a preparation for further independent study.

3 credits.

160.—Theoretical Astronomy. Fundamental problems in celestial mechanics, including determination of the orbit of a heavenly body from given observed places; correction to be applied to the orbits; speciol perturbations; determination of the mass of a planet, etc. A knowledge of spherical and descriptive astronomy, differential and integral calculus, differential equations, solid analytical geometry, and the elements af analytical mechanics is required.

6 credits.

193.—Trigonometrical Applications. Practical applications of trigonometry; designed for students of engineering, astronomy, etc.

3 credits, 1, 3—11 a.m. and 2—9 a.m.

77.—Mechanical Drawing. Six hours per week. Text: Faunce. Description and use of instruments, geometrical problems, inking, tinting, orthographic projections, working drawings, blue print process.

3 credit.

189.—Graphic Statics. Graphic methods of composition and resolution of forces, and determination of stresses, etc. Course 77 is a prerequisite, and course 78 must either precede or be taken simultaneously with this course.

2 credits.

78.—Descriptive Geometry. Six hours per week. Text: Faunce. The course will include instruction and practice in the shading of drawings and methods of casting shadows. Special attention will be devoted during a part of the second semester to linear perspective.

2 credits.

79.—Surveying. The surveying department is provided with the following instruments: Surveyor's transit, Burt's solar compass,,plane-table with the best modern improvements and attachments, compass with graduated limb reading to minutes, vernier compass, engineers y-level, sextant, polar planimeter, mercurial barometer, aneroid barometer, 8-inch vernier protractor reading to minutes; leveling rods, ranging poles, engineer's and Gunter's chains, steel tape, etc.

Students are taught to determine the true meridian, the variation of the needle and to measure heights with the mercurial and aneroid barometers. They learn also the methods of stadia measurements, and the calculation of areas by the polar planimeter. The best methods of differential and profile leveling, establishing grades, etc., are practically applied.

4 credits, 2—8 a. m.

126.—HIGHER SURVEYING. Students in this course will have access to the large transit instrument at the observatory and the sidereal clock, to establish a true meridian with greater precision than is possible with the ordinary surveyor's transit, and to determine time, longitude and latitude by astronomical observations. The course includes topographic, hydrographic, mining and geodetic surveying.

For all field work the class is divided into parties of two or three, and individual work is insisted upon as far as practicable.

3 credits.

COURSE IN CIVIL ENGINEERING.

Professor McAlister.

The course in Civil Engineering includes four years beginning with the freshman. The first two years will be found under the proper group on page 45. The junior and senior years are printed here.

Junior: 126 surveying, 3: 11 mechanics, 4; 16 geology 4; 10 physics, 5; elective, 1.

Senior: 174 geology, 2; 80 civil engineering, 5; 112 railroads, 3; 114 steam engine, 5; thesis, 2.

This course is under the direction of *Professor McAlister.*

PHYSICS.

Professor Friedel.

Professor Friedel gives all the courses.

9.—ELEMENTARY PHYSICS. The university offers three courses in physics, an elementary course, for freshman students, a general laboratory course, an advanced course for all students of the sophomore year who shall

elect either the physical or the chemical group of the general scientific course. Instruction in both courses is given by lectures, supplemented by experimental demonstrations, three times a week in the elementary and five times in the advanced course. The elementary course is prescribed for all students seeking a university degree. It is the purpose to present the subject in its more general and non-mathematical aspect, under the usual heads of mechanics, hydrostatics, hydrodynamics, acoustics, heat, light, electricity and magnetism.

3 credits, 1, 3, 5—9 a. m.

95.—Laboratory Physics. In addition to the regular course of lectures, a laboratory course is offered, the purpose of which is to thoroughly familiarize students with the use and management of various instruments of precision, and to train them to make physical measurements with scientific accuracy. Students seeking the B. A. degree will not be obliged to take the laboratory course, but are strongly urged to do so because of its invaluable aid to them for the successful mastery of the lecture course.

10.—Advanced Physics. The course in advanced physics presupposes a thorough mastery of the principles given in the elementary courses, as well as a good working knowledge of differential and integral calculus.

The aim of this course is to give as far as time permits, a thorough mathematical treatment of the fundamental principles embraced under the heads of Mechanics, Electricity and magnetism, Heat, Light and Sound. In this course the more recent developments of the science of physics receive considerable attention, and the student is made acquainted, in some measure at least, with what the scientific world is attempting in the field and what it is actually accomplishing. Such text-books as Maxwell's Matter and Motion, Clausius's Theory of Heat, Preston's Theory of Light, Emptage's Electricity and Magnetism,

and others are placed at the disposal of students as reference and supplementary text-books. Laboratory training is required and is made a prominent feature of the course.

5 credits. 1, 2, 3, 4, 5—1 p. m.

Whenever students shall have sufficient training in mathematics and there is a demand, separate courses in Analytical Mechanics, Dynamics, Geometrical Optics, Fourier's Theory of Heat, and courses in other more advanced subjects of Physics will be given.

The university is now in possession of a fairly adequate supply of physical apparatus, a considerable portion of which was secured from celebrated instrument makers of Europe, and is therefore of the very best make and finish. It is the policy of the university to increase this supply by substantial additions from year to year, in order that the department may keep abreast with the progress of the times in all particulars.

The establishment of a workshop in connection with this department has proved an invaluable aid. Apparatus which has become damaged in use is not only readily repaired, but new apparatus is constantly being constructed and added to the supply. The shop, while primarily intended for Electrical Engineering students, is open to students in Physics and offers an excellent opportunity towards securing that intimate acquaintance with finer details that the actual construction of apparatus alone can furnish.

11.—Advanced Mechanics, 4 credits.
12.—Electricity and Magnetism, 5 credits.

ELECTRICAL ENGINEERING.

The purpose of this department is to furnish special information relative to the theory of electricty and magnetism, and at the same time to provide a through, practical training in the construction, use and management of the various machines and instruments in which electricity is the product or the motive power. The course covers a period of four years and is an effort to unite general collegiate culture and through professional training. Since mathematics furnishes one of the best weapons for attacking electrical problems, a through acquaintance with some of the higher branches of this science is deemed essential for the successful completion of the course. This course is therefore liberally supplied with mathematical studies, both pure and applied.

To furnish training towards the development of the mechanical

skill necessary for the practical side of this course, the university has been provided with a machine shop, equipped with steam engines, lathes, saw-tables, etc., together with a liberal assortment of tools for work in both wood and iron, and instruction will be given in those branches of practical mechanics essential to the course.

The electrical engineering department proper will contain all the machines, instruments and apparatus necessary to the successful work in this course, viz: various forms of dynamos, motors, dynamometers, ammeters, voltmeters, transformers, accumulators, etc. The fact that the university is now supplied with an electric light system of its own, one in which both incandescent and arc lights are used, and one which is throughly up-to-date, and sufficiently comprehensive and varied to make it typical of actual working plants in cities, offers an opportunity to students for special training that can be secured in few other places. Students are given an opportunity of determining for themselves the actual cost of producing the electric current for both light and power. The instruction furnished will pertain to the theory, management, testing, repairing, designing and actual construction of machines and instruments of the kind named.

The theoretical instruction in electrical measurements and engineering will be given in the form of lectures, supplemented by regular review recitations. The work of the laboratory will be based on Stewart and Gee's Elements of practical Physics and Wiedemann and Ebert's laboratory manual. In dynamo and motor designing and construction, the work will be largely based on Sylvanus Thompson's Dynamo Machinery.

COURSE IN ELECTRICAL ENGINEERING.

Professor Friedel.

Junior: 11 mechanics, 4; 16 geology, 4; 10 physics, 5; technical instruction, 4.

Senior: 144 steam engine, 5; 12 electricity and magnetism, 5; technical instruction, 5; thesis, 2.

The freshman and sophomore studies will be found under the proper group on page 45.

CHEMISTRY.

Professor Lachman and Mr. Plumb.

Professor Lachman gives courses 15, 182, 152, 183, 116.
Mr. Plumb gives courses 175, 117, 183.

The courses offered by this department combine the lecture, the recitation, and the laboratory systems, stress being laid upon all three methods of instruction. The laboratory is accumulating an excellent reference library, and all students are urged and expected to make use of it.

The laboratory is fully equipped for all of the work described below. Its collections of inorganic and organic chemicals, minerals, and apparatus, are completely representative of modern chemistry, and offer unequaled facilities for practical study. The lecture and work-rooms have lately been remodelled, greatly increasing their capacity and effectiveness. The balance-room contains instruments by the best makers: Becker (2), Ainsworth (2), Kohlbusch. Special facilities are at hand for assaying, and large numbers of assays have been made during the current year particularly for the Bohemia mining companies.

A deposit of ten dollars is required of all students taking courses in chemistry. This deposit must be paid to the secretary of the Board of Regents and the receipt presented at the laboratory, before desks can be assigned. A portion of this deposit is retained by the university in payment for the chemicals used by the student; the remainder, less the charges for broken apparatus, will be returned at the end of the year. The charge for chemicals does not exceed $5 for any one course, and most likely is considerably less. Breakage should not amount to more than $2, if reasonable care be taken.

All the college courses must be preceded by course 13, or an equivalent. See announcement of sub-fresman work.

15.—Advanced Inorganic Chemistry. 2 lectures

and 4 laboratory hours per week. Freer's General Inorganic Chemistry will be used as a text-book. This course develops in a scientific manner, all the more important theories of modern chemistry. The work in the laboratory is largely quantitative in its nature; but the students also prepare a number of difficult inorganic compounds, to be deposited in the chemical museum.
4 credits, lectures, 2, 4—10 a. m.

175—ANALYTICAL CHEMISTRY, QUALITATIVE AND QUANTITATIVE. 8 laboratory hours per week. This course includes the complete analysis of the commoner technical products and minerals, and will give students considerable proficiency in the art of chemical analysis. It must be preceded by course 15.
4 credit.

182.—ADVANCED ANALYTICAL CHEMISTRY. Eight to sixteen laboratory hours per week. This course is intended for those who wish to become expert analytical chemists. No fixed plan is followed, the work being shaped to meet the special desires of the student. It includes the analysis of minerals, gases, water, iron and steel, poisons, foods, and technical products generally. It must be preceded by course 175, and if the student wishes to take up food analysis, by course 152 as well.
4 to 8 credits.

152.—ORGANIC CHEMISTRY. Two lectures and four laboratory hours per week. This course must be preceded by course 15. It is intended as an aid to students preparing for the practice of pharmacy and medicine. Organic chemistry is the back-bone of modern chemistry, and should not be neglected by students who wish to specialize in any branch of the subject. In addition to the course here described, every encouragement will be given to those who desire to continue the study.
4 credits.

183.—MINERALOGY. 1 lecture and 2 laboratory hours

per week. This course is intended to meet a general interest in mineralogy. It will present the outlines of crystallography, and then take up the mineralogy of this state. The laboratory work will consist in the identification of all of the more important natural chemical compounds.

2 credits, lectures, 4—9 a. m.

116.—Ore Dressing and Metallurgy. 2 lectures per week. Students are recommended to elect the course in assaying simultaneously with this course. It will cover the principal methods of treating and smelting ores employed in the United States and Europe. If possible, trips will be made to works in the vicinity, giving an opportunity of actually seeing the various processes in practical use. The course is open to all students who have completed the course in mineralogy.

2 credits.

117.—Assaying. 4 laboratory hours per week. The assay laboratory is well equipped for work in all the standard assaying methods, and students are given considerable opportunity to practice upon a number of local ores. The course must be preceded by courses 175 and 182.

COURSE IN MINES AND MINING ENGINEERING.

Professor Lachman.

The course in mining engineering includes four years beginning with the freshman. The first two years will be found under the proper group on page 48. The junior and senior years are printed here.

Junior: 166 Ore Dressing and Metallurgy, 2; 127 Assaying, 2; 11 Mechanics, 4; 16 Geology, 4; 79 Surveying, 3; elective, 2.

Senior: 174 Geology, 2; 118 Mining Engineering, 5; 126 Surveying 3; 182 Advanced Analytical Chemistry, 4; Thesis, 2.

GEOLOGY.

Professor Condon.

Professor Condon gives all the courses.

In this department the following courses will be offered in 1899–00. Students will have free access to Professor Condon's great museum.

148.—ETHNOGRAPHY. Open to all students. The course will consist of lectures upon: (1) The antiquity of the human race, illustrated with specimens. (2) The early migrations of races. (3) Permanent localities of races. The course will include such studies of geography as will naturally be required in treating the topics.

2 credits, 1, 4—10 a. m.

16.—GENERAL GEOLOGY. Descriptive course.

4 credits, 1, 2, 3, 4—9 a. m.

174.—ADVANCED GEOLOGY. Instruction in Economic Geology and Mineralogy, embracing the study of building materials, decomposition of rocks and production of soil; useful minerals, their occurrence in veins and beds; coal deposits, surface geology and its application to engineering. The work in mineralogy is mostly blowpipe analysis under Professor Lachman.

2 credits, 2, 3—2 p. m.

BIOLOGY.

Professor Washburn.

Professor Washburn gives all the courses.

College mathematics are not required of B. S. students electing S7, or S8.

This department is well equipped with microscopes and other apparatus used in physiology, anatomy, histology, and embryology. It has a museum collection containing skeletons, models and type specimens to illustrate the different groups. The models referred to have been obtained from the best sources in France and Germany, and have been found to be of great practical value. The courses are arranged to give special opportunities to those intending to study medicine in the University Medical School or other medical schools, and to those who intend to teach, or to

pursue investigations in biological science. Some of the courses, apart from their practical value, are to be regarded as culture studies recommended to any desiring a broad and liberal education.

By arrangment with those in charge of the medical school at Portland, connected with the university, any student who has passed here in elementary physics and chemistry, human osteology and syndesmology, histology, and physiology (proximate principles and blood) can anticipate one year of his work at the medical school.

See page 31 of catalogue for notice of medical school scholarship. Some of the leading medical schools in other states will allow students, prepared as above, to anticipate the first year's work. Write to this department for particulars. See also medical group in curriculum.

Students intending to study medicine or to teach are advised to take No. 103 in their Freshman year, No. 67 or No. 145 in their Sophomore year, No. 69 in their Junior year and Nos 146 and 110 in their Senior year. This plan, however, may be varied; the student planning work in Biology should consult the instructor in order to work systematically.

Those desiring a general knowledge of the animal kingdom, as part of their education are advised to take Nos. 103 and 67.

In each course, the cost to the student has been reduced to the lowest possible figure. In case of apparent conflicts, please consult instructor.

103.—General Biology. An introductory study of typical species of plants and animals from simplest to more complex forms, with reference to structure, function, development and relationship. The structure of the flowering plant as the highest type in the vegitable kingdom, is studied, students thereby laying the foundation for future work in botany.

Drawings of dissections and notes on personal observations are required.

3 credits. Lectures, 2, 4—9 a. m.

67.—General Zoology. A continuation of preceding course, consisting of dissections of vertebrate types, a study of their relationships, distribution, habits, economical importance, etc.

2 credits, 1–2 to 4 p. m., 3–9 a. m.

145.—Mammalian Anatomy and Human Osteology. Detailed dissection of a mammal (a dog or cat) followed by a thorough study of the human skeleton with special reference to syndesmology. Must be taken by those intending to anticipate the first year in the university medical school.

Required work: Howell's Dissection of the Dog, and Gray's Anatomy.

4 credits, Time to be arranged with instructor.

69.—Normal Histology. Lectures, recitations, and laboratory work. Open only to those who have passed satisfactorily in one of the preceding three courses, or who can satisfy the instructor that they are otherwise qualified. The entire year is occupied with the study of mammalian tissues and with instruction in laboratory technique, methods of staining, imbedding and sectioning. Must be taken by those intending to anticipate the first year in the medical school.

Laboratory guide and text-book: Piersol's Normal Histology.

3 credits, 2, 4, 5–2 to 4 p. m.

146.—Vertebrate Embryology. Lectures, recitations and laboratory work. Study of the embryonic development of the chick, with comparison of the development of other vertebrates. Must be preceded by No. 69. Advised for those intending to study medicine, to do advanced teaching or to pursue original investigations in biology.

Laboratory and text-book: Foster and Balfour's Embryology.

1 credit.

110.—Advanced Physiology. No student should elect this course who has not had elementary work in physics, chemistry and physiology. Open only to those who have passed satisfactorly in mammalian anatomy and histology, or who can satisfy the instructor that they

have done equivalent work elsewhere. Laboratory work consists of experimentation with cilia on ciliated surfaces, properties of contractile tissue, digestion, pulse, function of liver, qualitative analysis of blood, urine, bile, etc. Students are expected to learn how to use the kymograph, sphygmograph, centrifuge, manometer, Marey's tambour, time marker, muscle lever, cardiograph, etc.

Text-book: Waller's Human Physiology. Laboratory guide: Foster & Langley's Practical Physiology.
2 credits.

147.—Special Zoology. For those students who have become interested in a special group of animals and wish to become more familiar with that group. A student may, with certain limitations and with the advice of the instructor, elect the class of animals he desires and will be instructed in structure of type, collecting, preserving, and classifying specimens, study of habits, distribution, etc.

The number of groups from which selection may be made is, naturally limited. The student is advised to take No. 67 and 103 before electing. During seasons of good weather, field excursions will be made in connection with the course.

195.—Advanced Morphology. A graduate course of original investigation in morphology or physiology. A working knowledge of French and German is necessary. The subject of research is to be selected with the advice of the head of the department, and it is best to consult the latter some months in advance, in order to insure the presence of material for work. The student will prepare a thesis on result of his work. See also *Graduate Courses.*
6 credits.

199.—Botany. Structure and classification of flowering plants.
1 credit.

BIOLOGICAL READING CLUB.—The club meets informally once in two weeks at the home of the instructor to discuss current news in biology and to read works pertinent to the subject. Attendance purely voluntary.

PSYCHOLOGY.

Professor Hawthorne.

Professor Hawthorne gives all the courses.

155.—ELEMENTARY PSYCHOLOGY. Open to all who are prepared to take the study.

Elementary Psychology includes a study of the phenomena of the intellect, sensibility, and will, with constant application to the processes of education, and the psychological origin of philosophical problems.

Recitations, lectures and topics

Text-books: James's Psychology; Ladd's Primer of Psychology; Titchener's Outlines of Psychology; Titchener's Primer of Psychology.

3 credits, 2, 4,—10 and 3–11 a. m.

45.—EXPERIMENTAL PSYCHOLOGY.—Open to juniors, seniors and all who are prepared for the work.

The psychological laboratory consists of two rooms with apparatus for optical, acoustic, temperature, tactile, reaction, simultaneous, steadiness, attention, force, feeling, and memory experiments. Also the equipment includes instruments for the study of the time-sense, sense of position, association, aesthetics, and the motor effects of ideas, and the emotions. There is a supply of apparatus for all ordinary psychological experiments. The equipment is increased from time to time as the character of the investigation demands.

The work shop is always ready to make any additional apparatus required for additional work. The work is of two kinds:

(1) Demonstration courses intended to give a general knowledge of the experimental methods and of their relations to the more theoretical aspects of pyschology.

(2) Courses in original research in which advanced students are expected to pursue lines of work for a more or less extended period in some one field of experiment.

It is the aim of the laboratory to furnish every possible facility for such research work by competent students.

Text-books: Scripture's New Psychology, Sanford's Ex. Psychology.

5 credits, 1, 2, 3, 4, 5—8 a. m.

154.—PHYSIOLOGICAL PSYCHOLOGY. Open to all who are prepared to take the study.

A study illustrated by charts, models, and histological preparations, of the human nervous mechanism, of the principal relations which exist between changes in this mechanism and the activities of the mind, and a discussion of the conclusions which may be drawn from these relations respecting the nature and laws of mind. Physiological Psychology includes an account of working hypotheses, methods, experimentations, and general results. The method is, as far as possible, illustrative, with a large amount of required reading upon selected topics.

Text-books: Ladd's Outlines of Physiological Psychology; Wundt's Physiological Psychology.

3 credits, 1, 2, 5—11 a. m.

LOGIC AND GRAMMAR.

Professor McElroy.

The courses are all given by *Professor McElroy*.

157.—ELEMENTARY LOGIC. This course to be open to all students who may wish to take the study in the freshman year.

First Semester.—The following subjects will be studied and practical problems given under each head: Primary laws, concepts, ambiguity of terms, extension and intension, relations, predication, simple propositions, compound propositions. Reports upon topics by the class. Lectures by the instructor. Text-books: Davis and Hyslop.

Second Semester.—The rules of logic and grammar will be applied as follows: Processes of word-making, choice of words, ambiguity, characteristics of a good sentence, illogical sentences, modifiers, the logic of short sentences and of periodic and loose sentences, syntheses of simple, complex and compound sentences, contraction

and expansion of sentences, rules of syntax, the paragraph, clearness, force, ease and unity in composition, letter writing. Text-books: Whitney, Hart.
3 credits, 1, 2, 4,—2 p. m,

137.—ADVANCED LOGIC. For students in sophomore and junior years. *First Semester.*—Primary laws, the utility of logic, classification of terms and concepts, ambiguity of terms, extension and intension, the laws of variations and double meanings, connotative and non-connotative terms, the elementary principles of definition and division, simple propositions, the syllogism, rules of the syllogism, the moods, figures and reduction of the syllogism, logical fallacies and their classifications. Text-books: Hyslop and Jevons.

Second Semester.—Applications of deductive logic to English grammar and rhetorical analysis. The whole field will be covered from the point of view of logic. Text-book: Maetzner. Lectures by instructor.
3 credits, 1, 2, 4—3 p. m.

72.—APPLIED LOGIC. Relations of rhetoric to logic, process of word-making, synthesis sentences, the logic of structure, changes in structure and phraseology, transformation of elements, principles of choice, the unity of the sentence, logic of climax and anti-climax, the logical and rhetorical value of the period, the special properties of style, classification of attributes, deductive arguments, direct and indirect forms of discourse, poetical constructions. Lectures by instructor on the classification of languages. Text-books: Bain and Whately.
3 credits, 1, 3, 5—9 a. m.

156.—LOGIC. For junior year. *First Semester.*—Province of logic and its relation to other sciences; theory of names and laws governing the same, definition, analysis and canons of; propositions affirmative, negative, simple complex, particular, singular, verbal and real, essential and accidental; the predicables, their laws and

classifications; the syllogism, logical value and functions of; deductive and inductive syllogisms, their terms, propositions and conditional reasonings; hypothetical and disjunctive syllogisms, their propositions, complex reasonings; sorites; polysyllogism, progressive and regressive reasonings; the dilemma; fallacies; nature of fallacy; fallacies incident to conception, to judgment, to immediate inference, to deductive inference, to inductive inference, to method; Aristotle's and Whately's classification of fallacies; induction, induction in the discovery of truth; material and verbal conditions of inductive thought, induction from force or energy to begin, summary of principles regulating induction; hypotheses; origin and nature, formation and kinds, employment, statement of Newton's rules applicable to hypotheses; analogy of hypotheses and relation to enumerative induction; logical character and value of hypotheses; syntheses: special and general rules and application; generalization; nature and analysis, fallacies, empirical generalization; systematization; logic of the moral sciences. Practical problems under the several discussions. Lectures on the history and utility of logical science by the instructor. Text-books: Bain, Mill, Jevons.

Second Semester.—During this semester the following subjects will be studied: 1.—The logic and principles of argumentation. 2.—The logic and philosophy of English literature. 3.—Analytics of literature. 4.—Analysis and logic of rhetoric. Text-books: White, Sherman. Reports by class on subjects studied. Papers and practical problems. Lectures by instructor on the following subjects: Logic in discourse, argumentative composition, study in the logic of invention and style, logic of literary art.

3 credits, 1, 3, 5—10 a. m.

125.—LOGIC. For senior year. *First Semester.*—Nature of the laws of thought; logic as a general science; the

growth of language; kinds of terms and their analyses; variation and laws of extension and intension; analyses and variations of propositions; rules, moods and figures and reduction of syllogisms; compound and conditional syllogisms; induction: doctrines of Newton, Aristotle, Mill and Jevons; relations of induction to deduction; hypotheses: nature and development of hypotheses; establishment and extension of hypotheses; application of hypotheses; statement and examination of Newton's rules; methods: scope, kinds and rules of method; methods of determining magnitude; estimation of probabilities; probablity of independent and dependent events; recurrence of events. Practical problems under the several discussions. Lectures by the instructor on the functions and value of the syllogism and the doctrines of induction.

Second Semester.—Logical and material fallacies; fallacies of observation, of ambiguous terms, of generalization, of confusion; Mill's classification and discussion of fallacies; fallacies incident to immediate inference; illicit conversion and inversion; fallacies incident to deductive and inductive inference; concrete and abstract fallacies; false analogies; illicit generalizations; fallacies of confusion. a: Logic of mathematics. b: Logic of literature. c: Logic of practice. d: Logic of politics: e: Logic of journalism. f: Logic of criticism. g: Historical evidence. Practical problems. Lectures by instructor. Reports upon topics by the class. Text-book: Welton.

5 credits, 1, 2, 3, 4–11 a. m., 5–2 p. m.

HISTORY AND POLITICAL SCIENCE.

Professor Young and Mr. Woodson.

History.

Professor Young gives courses 129b, 136.
Mr. Woodson gives courses 63, 141, 128, 129a, 62.

63.—Mediæval History. A study of the political and social institutions and movements on the continent from the fifth to the fifteenth century. Required of all students. Prerequisite: Freshman standing.

3 credits, 1, 3, 5—10 a. m.

141.—Modern European History.—This course is a continuation of the mediæval history and is intended to prepare for the course on the French revolution and nineteenth century. It traces the transformation of the mediæval institutions. Special attention given to the different phases of the renaissance, to the reformation, the counter-reformation, and the development and relation of the continental nations of Europe antecedent to the French revolution.

3 credits, 2, 4—10 a. m.

128.—History of the French Revolution and the Nineteenth Century.

3 credits, 1, 3, 5—2 p. m.

129a.—Political and Institutional History of the United States to the Achievement of their Independence, 1783. The relations of the era, discovery and explorations in history; the motives in settlement; development of representative government in the colonies; divergence of American and English institutions; the causes of failure of France in the struggle for the new world; the constitutional struggle preceding the revolution; the revolution in its political aspects.

3 credits, 1, 3, 4—9 a, m.

129b.—Political and Constitutional History of the United States since 1783. The critical period for the nation; the causes leading to the formation of the constitution; the organization of the government by the Federalists; the Jeffersonian democracy; the westward movement; influence of the frontier; financial history;

slavery struggle; state's rights doctrine; reconstruction after the war.

3 credits, 1, 3, 4–9 a. m.

62—English Constitutional History. This course is intended to cover a study of English institutions, political and social, from the Roman conquest down to the present century. Should precede courses 129a and 129b.

3 credits, 2, 5–9 a. m., 4–2 p. m.

136—Oregon History and Institutions. A study of the wider relations of the movement converging in the occupation of Oregon territory; the Oregon pioneers as the representative Americans of the first half of this century; the provisional goverment; the development of the distinctive traits and institutions of the commonwealth.

1 credit, 5–9 a. m.

Economics.

Professor Young gives courses 44, 196, 81, 149.

44.—Economics. A comprehensive course in the elements and principles of economics. The aim is to inculcate the rational basis of accepted doctrine and to show the nature and bearings of unsettled questions. Required of all students. Prerequisite: a sophomore standing.

3 credits, 2, 4, 5—11 a. m.

196.—Economic History and Industrial Organization. The economic development of England and America with the organization of modern capitalized industry.

2 credits 1, 3—11 a. m.

81.—History of Economic Thought. A study of economic theories in their relations to economic history and philosophical systems. A critical study of modern theories of capital. value, distrubition, and consumption.

2 credits, 2, 4—10 a. m.

149.—Money and Banking, Finance and Taxa-

TION. General principles as applied to the money problem, history of monetary systems; principles of banking; public debts: principles and methods of state and national systems of taxation.

3 credits, 1, 3, 5—10 a. m.

Political Science.

Professor Young gives course 65.

Mr. Woodson gives 130, 97.

130.—AMERICAN CONSTITUTIONAL LAW. The development of the structure and functions of American national and state governmental organizations.

2 credits, 2, 4—11 a. m.

65.—COMPARATIVE CONSTITUTIONAL LAW. Definition of the state; comparative view of the development of political institutions of the western nations and their present condition.

3 credits, 1, 3, 5—8 a. m.

97.—INTERNATIONAL LAW. General principles.

1 credit, 5—11 a. m.

Sociology.

Professor Young gives course 40.

40.—GENERAL SOCIOLOGY. History and principles of the science with discussions of pauperism, crime, and care of unfortunates.

2 credits, 2, 4—8 a. m.

GREEK.

Professor Straub.

Professor Straub gives all the courses.

28.—FIRST SEMESTER: Xenophon's Memorabilia en-

tire, Demosthenes' De Corona, D'Ooge; Thucydides, Morris; Study of the Attic Theatre, Haigh. Required reading, Bredif's Life of Demosthenes.

SECOND SEMESTER: Sophocles' Antigone, D'Ooge; Aeschylus' Prometheus, Wecklein; Greek literature, Morris.

3 credits, 1, 2, 4—3 p. m.

131.—SIDGWICK'S GREEK PROSE COMPOSITION, once a week throughout the year.

1 credit, 4—9 a. m.

29.—FIRST SEMESTER: Plato's Apology and Crito, Dyer; Euripides, Medea, Pindar's Odes, Seymour; History of Greek Philosophy, Burt or Mitchell.

SECOND SEMESTER: Euripides' Bacchantes, Beckwith; Aristophanes' Frogs, Acharnians or Clouds; Plato's Gorgias, Lodge. Haigh's "The Tragic Drama of the Greeks" will be read and discussed during the year.

3 credits, 1, 2, 4—2 p. m.

30.—Subjects in this course will be arranged after consultion with the class.

LATIN.

Professor Dunn.

21.—Livy (Books XXI and XXII, or I and II, or I and selections from XXI and XXII). Selections from Lyric, Elegiac, and Iambic poetry. Terence (Phormio and Adelphoe, or Andria, or Heauton timorumenos). Reading at sight.

3 credits, 1, 2, 4—2 p. m.

Course 21 is designed especially for freshmen, but is open to all students who have passed in course 138 (see page 39), or its equivalent.

Text-books: Livy I, XXI, XXII, Westcott's edition.

199.—Latin Composition. Translating English Narrative. One hour each week.

Course 199 is provided to supplement the student's practice in reading and is intended to be taken with course 21. Freshmen in regular standing or students who have passed in course 138 are eligible. Attention will be given chiefly to Latin idioms. Miller's Latin Composition for College Use (Sanborn & Co.) will be used as a basis for work.

22. Horace (Odes and Epodes), Tacitus (selections from the Annals, or Historics).

3 credits, 1, 2, 4,—3 p. m.

In course 22, Horace is studied especially for literary purposes. Attention will be paid to the events and persons whom he mentions, to the story of his own life, to his literary style, and to the place he holds in Latin literature. Whether the Annals or the Histories are read, either will introduce the student to an interesting epoch in Roman history. Reference will be made in prescribed reading to the leading authorities on this period.

Text-books: Horace, Odes and Epodes, Shorey's edition (Sanborn & Co.); Tacitus, Annals, Allen's edition (Ginn & Co.); Histories, Books I and II, and III, IV, and V, Godley's edition (Macmillan).

(Allyn & Bacon); Livy I, II, Greenough's edition (Ginn & Co.); Terence, Phormio, Bond and Walpole's edition (Macmillan); Adelphoe, Cowle's edition (Longmans); selections from Latin poets with brief notes (published by Harvard University).

Lectures. Special lectures for students in course 21 have been provided upon the following topics, to be given at stated intervals during the year: "The Regal Period of Rome," "Rome and Carthage," "Livy," "Hannibal," "The Roman Historians," "Latin Lyric Poetry," "Terence" and "The Roman Theater."

200.—Latin Composition. Farther study of Latin idioms. One hour each week and consultation hours at option.

Course 200 is intended to be taken in connection with course 22 and is a continuation of course 199. Preble and Parker's handbook of Latin writing (Ginn & Co.) will be used as a basis for work.

23.—Suetonius (selections, or books I and II). Pliny (selected letters). Juvenal (the principal Satires). Martial (selected Epigrams).

2 credits, 2, 5—1 p. m.

Course 23 is designed especially for those who have taken Courses 21 and 22 and who desire to pursue the study of Latin farther. The authors read are especially valuable for their reference to Roman society under the Empire.

Text-books: Selections, Roth's text-edition (Teubner, Leipzig), or Peck's edition of Books I and II (Holt and Co.,) Pliny, Westcott's edition of Selected Letters (Allyn and Bacon), or Books I and II Cowan's edition (Macmillan), or Book III, Mayor's edition (Macmillan,) Juvenal, Lindsay's edition (American Book Co.) Martial, Stephenson's edition of Selected Epigrams (Macmillan.)

24—Plautus (Captivi, Trinummus and Pseudolus). Lecretius (selections, or Books I and III). Horace (Satires and Epistles).

3 credits, optional hours.

Text-books; Plautus, Captivi and Trinummus, Morris's edition (Ginn & Co.); Pseudolus, Morris's edition (Allyn & Bacon): Lucretius. Munro's text-edition (Harper) or Lee's edition of Books I and III (Macmillan): Horace, Satires and Epistles, Kukland's edition (Sanborn & Co.).

201.—Catullus and the Elegiac Poets. The Letters of Cicero.

3 credits, 3 hours each week. Omitted in '99 — '00.

Course 201 is given in alternate years, and is open to students who have passed in course 22. The study of Catullus will occupy about one-fourth the time of the course. The remainder of the first half-year will be devoted to reading suitable selections from Tibullus, Propertius and Ovid. Lectures will be given from time to time.

Cicero's Letters will occupy the entire second half-year. A selection of letters will be read, dealing with some special period in Cicero's life and with special reference to the insight given by them into his character and times.

Text-books: Catullus, Merrill's edition (Ginn and Co.): Schulze's Rœmische Elegiker (Weidmann, Berlin): Cicero's Letters, Abbott's edition (Ginn and Co.)

202.—Latin Literature of the Empire.—Lectures, with reading of characteristic selections, and direction of the student's private reading.

3 credits, 3 hours each week.

Course 202 is open to all students who have passed in course 22. Both prose and poetry of the Empire are covered in lectures, historically and biographically, and with reference to the literary qualities of each subject. Selections will be read to illustrate each author. Gudeman's Latin Prose and Poetry of the Empire, 2 vols. (Harper) will form the basis of work.

203.—Roman Satire from Ennius to Juvenal. A course of lectures supplemented by special studies and reading.

3 credits, 3 hours each week.

Omitted in '99–'00.—Given in alternate years.

This course presupposes a knowledge of the Satires of Horace and Juvenal, and is therefore primarily intended for students who have taken courses 23 and 24. Every student is required to read all the Satires of one or the other of the above named authors and selections from the other writers of satire, at the instructor's option. Mer-

rill's Fragments of Roman Satire (American Book Co.) will form a convenient basis of work.

204.—Studies in Roman Comedy.

3 credits, 3 hours each week.

Course 204 is intended primarily for Graduate Students. The Menæchmi of Plautus, Fowler's edition (Sanborn & Co.) will form the basis of lectures and reading in the history, structure, and literature of Roman Comedy.

GERMAN.

Professor Schmidt.

Professor Schmidt gives all the courses

The aim of the instruction in this department is primarily to enable students to use modern German with facility in reading, writing, and as far as possible in speaking, and to acquaint them with the masterpieces of German literature.

Opportunity is also given for graduate studies in German. The graduate courses in German, for which a thorough linguistic preparation is required, are intended especially for students who desire to make the teaching of German their profession or who expect to take their M. A. degree in German. Careful attention is given to the linguistic as well as to the literary training of the student, aiming at a comprehensive insight into the historical growth of the Germanic languages and literatures.

The following courses are offered:

34.—(a) MODERN AUTHORS; Riehl's Burg Neideck; Fluch der Schoenheit. Wildenbruch's Der Letzte. Heinrich und Heinrich's Geschlecht; Sudermann's Novels; Hauptmann's Die versunkene Glocke; Ebner Eschenbach's Die Freiherren von Gemperlein, etc.

(b) SCIENTIFIC GERMAN. This course recommended to students who are taking, or who plan to take, special courses in Natural Science or in Medicine; Gore's German Science Reader is used as an introduction, and is followed by monographs on various subjects, in order to give the student as large a vocabulary as possible. Among the

books to be read are: Hirzel's Chemie; Brewer's Naturlehre; Mueller's Die electrischen Maschinen; Helmholtz's Ueber Goethe's Naturwissenschaftliche Arbeiten. No student is advised to take this course who has not had at least two years of thorough preparation in literary German.

(c) GERMAN POETRY. White's Heine's poems; Klenze's Deutsche Gedichte; Kluge's Auswahl deutscher Gedichte is used as a text-book in the study of German ballads and lyrics. German conversation; papers on assigned topics will be required.

This group will not be taken in its entirety in any one year. 3credits, 1, 2, 4, –3 p. m.

35a.—HISTORICAL GERMAN. This course consists of the rapid translation of modern historical and economic German. It is especially designed for those students who wish to acquire a sufficient knowledge of the language to enable them to read German books on history, philosophy, etc. The matter to be read is selected from such works as Riehls' Kulturgeschichtliche Novellen; von Sybel's Kleine historische Schriften; Freytag's Bilder aus der deutschen Vergangenheit, etc.

(b) GERMAN PROSE. (advanced course.) Essayists of the nineteenth century; rapid reading. The object of this course is to increase the student's command of the language by the reading of a large amount of the best modern prose. The reading matter is taken from such writers as Bismarck, Herman Grimm, Reinhold Pauli, Treitschke, Kuno Fischer and Heinrich von Sybel. The course is conducted in German.

3 credits, 3—11 a. m., 4—9 a. m., 5—3 p. m.

GRADUATE COURSES LEADING TO THE M. A. DEGREE.

Philological Course.

FIRST MINOR: Pauls' Mittelhochdeutsche Grammatik; Mittel-

hochdeutsches Lesebuch by Engelmann-Brenner; selections from the Nibelungenlied. Walter von der Vodgelweide, Parzival.

SECOND MINOR: The literature of the nineteenth century, especially Goethe and Schiller.

MAJOR: [a] Gothic and its relation to the other German dialects with respect to phonology, vocabulary, and inflectional system. Braune's Gotische Grammatik and Heyne's Ulfilas will be used as text-books. Streitberg's Urgermanische Grammatik.

[b] OLD-HIGH-GERMAN. Braune's Althochdeutsche Grammatik; and the same author's Althochdeutsches Lesebuch.—Behaghels' Historical Grammar of the German Language.

Literary Courses.

MINORS: Either minor, required under the heading of Philological Course, may be offered.

MAJOR: History of German Literatnre to the nineteenth century; with special study of the classic periods of the twelth and eighteenth centuries. Scherer's Geschichte der deutschen Literatur, Franke's social forces in German literature are used as text-books. Papers on assigned topics will be required.

FRENCH.

Professor Schmidt.

[The courses scheduled in this department will be given in alternate years as it may suit the needs of the class.]

Professor Schmidt gives all the courses.

The main purpose of the instruction in the French language is to impart to the student the capacity to read with critical accuracy and appreciation modern and classical French. This may be to him a key to a broadened culture; it will guide his steps towards an appreciative acquaintance with a foreign literature. But opportunities for a more thorough literary study or for acquiring a practical knowledge of the language on the basis of this elementary work are also offered.

The following courses are offered:

38.—CLASSICAL FRENCH. Corneille's Le Cid and Horace; Racine's Esther, Phedre, Andromaque; Moliere's Le Tartuffe, Les Femmes Savantes, Le Bourgeois Gentilhomme. Lamartine's Meditations (Curme); Modern French Lyrics (Bowen); Duval, Histoire de la Litterature

Francaise; Sept Grands Auteurs du XIXe Siecle. Papers on assigned topics will be required.

3 credits, 1, 2, 4—1 p. m.

39a.—FRENCH PROSE. Rousseau, Emile, Livre IV, including the Profession de Foi du Vicaire Savoyard; Voltaire's Prose, Cohn and Woodward; Mirabeau, Discours Choisis; Montesquieu, Lettres persanes, Esprit des Lois, first five books and extracts, edited by Paul Janet, Paris, Delagrave. Choix d'Extraits de Daudet; Taine, Les Origines de la France Contemporaine, etc.

b.—PHYSIOLOGICAL PHONETICS. Students will need Sievers, Grundzuege der Phonetik; Paul Passy, Les Sons du Francais, Paris; A. Rambeau, J. Passy, Chrestomathie Francaise. Lectures,

3 credits, 2, 4, 5—2 p. m.

SPANISH.

Professor Schmidt.

199.—SPANISH. Open to students who have had French or Latin. Elementary Spanish. Manning's Practical Spanish Grammar; Matzke's First Spanish Readings; Galdo's Dona Perfecta.

ENGLISH.

Luella Clay Carson, M. A.,

Professor of English Literature and Rhetoric.

Irving M. Glen, M. A.,

Professor of English Philology and Oratory.

Ida B. Roe, B. A., Assistant in English.

Six objects are contemplated in these courses:

1—A scientific knowledge of the origin and development of English Literature in general and of special periods in particular.

2.—A scientific knowledge of the laws of written and of spoken discourse.

3.—An ability to appreciate, enjoy and justly criticise the best in English literature.

4.—Proficiency in English composition.

5—An ability to apply the methods of philological science to the English language.

6.—The ability to appear before an audience with composure and speak so as to be heard, to be understood and to be believed.

The first and third objects are reached through lectures, the study of texts, the reading and discussion of English classics and student reports. The second object is reached through the study of rhetoric and criticism, and the analysis of masterpieces in English composition. The fourth object is reached by regular practice throughout the courses of study in writing essays, criticisms, forensics and orations. The fifth object is reached through the study of the English language in its historic development from its earliest known monuments to the present time. The sixth object is reached by practical work in the fundamentals of good speaking, correct methods of breathing, tone production and the study of oratorical delivery.

Rhetoric and Criticism

60 —RHETORIC AND CRITICISM. In order to develop the logical sense and command of language, lessons are recited from outlines and by topics. A good deal of written work is done to develop accuracy, originality and creative power. Taste and love of good reading are educated through criticism of choice extracts of standard literature. The first half of the year is given to the study of style, and exercises are written giving special attention to diction, figures and structure of sentences and paragraphs. The second half of the year is given to invention. The laws governing the choice and arrangement of material are made prominent, also the peculiar characteristics of each form of discourse. Exercises are written illustrating the essentials of description, narration, exposition and the different forms of argument.

Text-books: Genung's Practical Rhetoric and Genung's Rhetorical Analysis.

Professor Carson, 4 credits, 1, 2, 3, 5, –9 a. m.

English Composition.

The following courses in English composition comprise papers under description, narration, exposition, criticism and comparison, followed by forensics, analysis of masterpieces of argumentative composition, short stories and orations.

Occasionally short stories and vivid portrayals are written to secure graphic and sympathetic expression of thought. Under these various headings topics are assigned and an effort made to refer to many phases of widely different subjects,so that every student may have opportunity to pursue some favorate line of thought or investigate some valuable question. Students are encouraged to utilize material prepared for other departments. Great stress is laid on the clear, forcible, elegant presentation of thought. Every essay must develop some orderly arrangement; every forensic must be an effort to decide some definite question in the affirmative or negative. All students have access to the valuable library of the university. Assistance is given by referring them to authors and articles relating to their assigned topics and they are encouraged to read widely and intelligently under an orderly outline of thought. But emphasis is laid on the original treatment of topics, in so far as that is possible. Mere summaries from book notes or encyclopædias will not be acceptable. It will not be admissible to quote without using quotation marks or naming the author. Subjects of imaginary or local interest are often assigned, upon which there can be no printed information, so as to require of the student independent thonght. All students are urged to be accurate in neatness of arrangement, spelling and punctuation, grammatical construction and figurative expression. Every paper, after criticism, is handed back to the student for correction, and so far as time will allow, is read in class and its excellencies and defects are discussed. The senior course in short stories follows a good deal of work in argumentations and attempts to work out the fundamentals of the art of short story writing through lectures, analysis and construction. In the junior and senior courses in orations. lectures are given concerning the differences between spoken and written discourse, the characteristics of the oration, the nature and purpose of persuasion, the laws of good prose.

49a.—Narration and Description. Prescribed for all who have passed in course 144 or who offer an equivalent. The aims of this course are: a, to stimulate an in-

terest in literature for its own sake; b, to secure accuracy in grammatical forms; c, to develop confidence and ability in writing. Three methods are used: 1, the analysis in class of choice bits of literature; 2, constant practice in exercises in class and outside under grammatical rules and requirements; 3, the preparation of six short themes under narration and description. Text-book: Buehler's Practical Exercises in English.
Miss Roe, 1 credit.

49b.—NARRATION, DESCRIPTION AND EXPOSITION. Open to freshmen who for any reason are permitted to elect 49b instead of the prescribed 49a. This course is intended to meet the needs of freshman who are ready to do work somewhat in advance of 49a and of special students. It aims: a, to secure knowledge of the fundamental principles of composition; b, to secure skill in the construction of sentences and paragraphs and in outlining. These subjects are reached through text-book, lectures, analysis and constructive work. Six themes are required under narration description and exposition. Text-book, Fletcher & Carpenter.

50.—CRITICISM, EXPOSITION AND ARGUMENT. Prescribed for all B. A. and B. S. candidates who have passed in course 49. This course is closely connected with course 60. It aims to give a practical knowledge: a, of the principles of English prose style; b, of the organization of discourse from the choice of words up. Constant practice in writing consists of: a, exercises based on the text-book, written in the class-room and outside, and b, the preparation of six themes accompanied by outlines, illustrating the principles of rhetoric under criticism, exposition and argument. Text-books: Genung's Practical Rhetoric, and Carpenter's Exercises in Composition
Professor Carson, 1 credit, 1—11 a. m.

Courses 51, 52, 133, 134, 135, 176, are given by *Professor Carson.*

51.—FORENSICS AND ORATIONS. Open to all juniors who have passed in course 50 excepting such as elect course 133. Course 51 consists of 1, the drawing of two briefs from masterpieces of argumentative composition; 2, the study of principles and methods under inductive and deductive arguments and of the qualitive and structure of forensics and orations; 4, the writing of one narration or description, three forensics and one oration, each preceded by a brief. Text-book: Baker, Specimens of Argumentation.

1 credit, 1–8 a. m., 4–11 a. m.

52.—FORENSICS AND ORATIONS. Open only to seniors who have passed in course 51. Seniors who have passed in course 51 or 133 may elect 52 or 134 or half courses 135a-135b, Course 52 consists of 1, the drawing of one brief from masterpieces of argumentative composition; 2, the study of principes of argumentation, special attention being given to evidence, and of methods of persuasion, special attention being giveno the consideration of motives; 3, lectures, consultations and criticism of briefs, forensics and orations; 4, the writing of two forensics and two orations each preceded by a brief. Text-books: Baker, Principles of Argumentation; Baker, Specimens of Argumentation.

1 credit, 5–2 p. m.

133, 134, 135.—Two elective courses and two elective half-courses in English composition will be offered in 1899-00. Course 133, one credit, in forensics which may be elected instead of 51 by juniors who have passed in 50; course 134, 1 credit, in forensics which may be elected instead of 52 by seniors who have passed in 51 or 133; half-courses 135a in forensics, 135b in by-weekly thems, 1 credit, which together may be elected instead of 52 or 134 by seniors who have passed in 51 or 133.

176. A special course in English composition, open only to A. M. candidates.

1 credit.

reports. Authors read: Franklin, Cooper, Irving, Poe, Webster, Bryant, Longfellow, Emerson, Hawthorne, Holmes, Lowell, Lanier.

2 credits, 2, 4—10 a. m.

58.—ELIZABETHAN DRAMA. Taken in regular course by juniors and seniors. Course 58 aims to give through lectures a general knowledge of the rise and development of the Elizabethan drama and through reports, the reading and discussion of plays, a more definite knowledge of the great contemporaries of Shakespeare, and of one or two plays of Shakespeare. Thayer, Best Elizabethan plays.

1 credit, 3—10 a. m.

59a.—SHAKESPEARE. Taken in regular course by seniors. This course consists of about ten plays so selected from Dr. Furnivall's classification as to indicate the growth of Shakespeare's mind and development of his art. These plays are examined with special reference to their sources, relative dates and changes in style. An attempt is made to study the art in development of plot and delineation of character. The work is carried on through lectures, reports, class readings and discussions. Principal references consulted: Furness's Variorum Edition; Schmidt's Shakespeare Lexicon; Saintsbury's Elizabethan Literature; Leopold Edition with Dr. Furnivall's Introduction; Dowden, Corson, Hudson, Mrs. Jameson.

3 credits, 2, 3, 5—11 a. m.

59b.—SHAKESPEARE. Taken in regular course by seniors. This course consists of about ten plays so selected as to give a view of Shakespeare's power in historical drama, comedy, tragedy and romance. An attempt is made to study Shakespeare's laws of construction, development of a plot and delineation of character. The methods of work are similiar to those used in 59a. [59b, will not be given in 1899-00.]

180.—GROUP COURSE. A three hour course open to freshmen making a speciality of English. Text-book: West's Grammar.

Miss Roe, 3 credits, 2, 3, 5–8 a. m.

Failing and Beekman Prizes in Orations.

Only seniors who have courses 51 and 52 will be eligible to enter the competition for the Failing and Beekman prizes.

English Literature.

56.—GENERAL ENGLISH LITERATURE. Prescribed for A. B. and B. S. degrees. This course is a prerequisite for other courses in English literature. It is intended to be a college introduction to the study of literature. It is given through a text-book, Pancoast's Introduction to English Literature, and a series of masterpieces: The Færie Queene, Merchant of Venice, Bacon's Essays, Comus, Lycidas, The Ancient Mariner, The Excursion, Marmion, Essays of Elia, Childe Harold, Cantos III and IV, Silas Marner, The Princess. The aim is to secure these results: 1, a general knowledge of the great periods in the development of English literature; 2, a definite knowledge and appreciation of a number of English classics.

Professor Glen, 3 credits, 2, 4, 5—11 a. m.

Courses 57, 58, 59, 158 and 197 are given by *Professor Carson*.

57.—AMERICAN LITERATURE. Taken in regular course by juniors. Open to all who have taken course 56.

Course 57 gives an outline of American literary history and the reading and discussion of important works in prose and verse. It is carried on through text-book, Pancoast's, American Literature; lectures and student

96.—ENGLISH PROSE WRITERS OF THE NINETEENTH CENTURY. Macaulay, DeQuincy and Carlyle. This course is open to those who have taken course 56. It will be conducted through lectures, discussions and reports. Text-books: Minto, Manual of English Prose; Macaulay, Carlyle on Johnson (ed. W. Struck, Jr.) DeQuincy, Joan of Arc (ed. Hart.)

Miss Roe, 2 credits, 4 –8 a. m., 1, 5—p. m.

158.—EPIC AND LYRIC POETRY IN ENGLISH LITERATURE.

This course includes a study of historic development of the English epic. Short studies in the early ballads, and readings from the Beowulf (in translation), Paradise Lost, The Idylls of the King. Lyrics will be studied as to their nature and quality with readings from Palgrave's Golden Treasury and the poets.

197.—ENGLISH VERSIFICATION. Open to those who have taken 56. The course gives a study of the history and principles of versification with critical study of selection.

1 credit.

Courses in Victorian Poetry and Victorian Prose are under contemplation.

ENGLISH PHILOLOGY.

Professor Glen.

Professor Glen gives all the courses.

Course 55 and 177 are primarily designed for undergraduates. Course 178 for graduate students. Graduate students, however, may be admitted to courses 55 and 177 and work done in those courses will be credited for M. A. degree in English.

55.—ANGLO SAXON. Anglo Saxon grammar and translation of select passages of prose and poetry. The relation of Anglo Saxon to the cognate continental languages will be carefully studied and the similarities traced. A knowledge of German will be found extremely helpful.

The elementary knowledge of Anglo Saxon will be valuable to students of English history and English constitutional law. Open to students that have completed course 56. Bright's Anglo Saxon Reader.

3 credits, 1, 2, 4—2 p. m.

177.—ANGLO SAXON. Prose readings from Aelfric, Alfred, and the Saxon Chronicles. Selections from Andreas and Elene. Open to students that have completed course 55.

3 credits, 1, 2, 4—3 p. m.

178.—ANGLO SAXON. Beowulf—a textual and critical study of the great epic. Special emphasis will be laid upon the phases of Anglo Saxon life and spirit that the poem may express. Open to students that have completed course 177.

2 credits, 2, 4—10 a. m.

198.—CHAUCER. Textual and critical studies in the Canterbury Tales and in minor poems. The seminary method is used when conditions are favorable. Open to students that have completed course 56. May be taken also by graduate students.

1 credit, 2—9 a. m.

190.—HISTORY OF THE ENGLISH LANGUAGE. A general course in the growth and development of the language. Lectures and work in text-book, Emerson or Whitney. Open to students that have completed course 56.

1 credit, 4—9 a. m.

191.—ENGLISH PHONOLOGY. Principles of phonetics. Development of English vowel and consonantal sounds. Lectures and study of standard works. Open to students that have completed course 190.

1 credit, 3—9 a. m.

ORATORY.

Professor Glen.

Professor Glen gives all the courses.

There are five occasions for the delivery of public debates and orations scheduled for each year. This includes the competition for the Failing and Beekman prizes. In order to be eligible to enter this competition a student must have completed course 100 and one semester of course 101. Students will not be allowed to enter course, 100 and 101, however, unless they have done satisfactory work in course 98 and 99 in this university, or equivalent work elsewhere.

98.—Regular Freshman Course. Fundamentals, articulation, emphasis, inflection, and elementary work in vocalization and gesture.
1 credit, 3—11 a. m.

99.—Open to all who have taken 98. A more detailed study of interpretation and expression. Advanced work in vocalization and gesture. Public work.
1 credit.

100.—Introduction to the study of oratorical forms and delivery, characteristics of oratorical style. Divisions of oratorical style, methods of cultivation of best style. What to avoid in oratory. Continuation of work in vocalization. Public junior orations.
1 credit.

101.—Study of famous orations and orators. Private rehearsals. Class drill. Competition for Failing and Beekman prizes.
1 credit, 5—10 a. m.

MUSIC.

Director, W. Gifford Nash, Piano.

Assistant, Mrs. R. C. Brooks, Voice.

The director studied the piano in Europe as a specialty. In Leipzig, Germany, he studied for one year in the Conservatorium, then with the celebrated teacher Professor Martin Krause, for three years, and later with Julien Pascal of London, England. Mr. Nash has given three piano recitals in Eugene.

The program of the second recital is printed here to show the grade of the work.

Second Piano Recital.

Beethoven, "Concerto in C minor" (orchestral parts on 2nd piano.) Bizet, "The Toreador's Song." Chopin, Four Etudes, Waltz, C shp. min., Nocturn, F shp. maj., Ballade, A flat maj. Wagner, "Ye Halls of Song I give Thee Greeting." Liszt, "Hungarian Fantasie;" (orchestral parts on 2nd piano.)

Commencement Students' Recital.

"Wedding March," Mendelssohn. Scarf dance, Chaminade, Fantasie in A minor, Mendelssohn. "Thy Dreams," Tosti. "Arietta, Album Leaf," Grieg. "Oh Star of Eve," Wagner. Lange, "Impromptu in A flat". Minuetto in B minor," Schubert. "Spring song," Lynes. "Under the Leaves," Thome. "Mazurka," Godard. "What the chimney sang," Griswold. "Funeral March," Allegro from op. 26, Beethoven. "Waltz," in A flat, op. 42, Chopin. "Concerto in G minor," Mendelssohn; (orchestral parts on 2nd piano.) "Concerto in F minor," Weber; (orchestral parts on 2nd piano.)

History of Music.

From the age of primitive man to present time, tracing the evolution of music as an art in various countries. This is given in a course of lectures once a week and is open to all university (college) students as an elective course for one credit, and also to all those studying in the musical department.

Expenses.

Terms for piano lessons, $1.00 per lesson. For students not able to afford $1.00 lessons, good instruction can be had for fifty cents per lesson from the most advanced of those studying with the director and along the same lines of study as those given by him. Such students have the advantage of having a lesson once a month from Mr. Nash, free, in the presence of the teacher.

For students making a specialty of music, classes in harmony will be formed, for which charges will be made according to size of class.

Credits and Course of Study.

One credit per year for two years will be allowed students registered in the university taking the course in piano playing.

The same rules and regulations regarding absences from recitations and progress made will be enforced as are customary in other departments of university work.

First Year: Czerny, op. 821, eight-bar studies; Duvernoy, op. 120, Etudes; Bach, Little Preludes; Schumann, op. 68, Album; Loeschhorn, Classical Album, Peters Edn., 2135a.

Second Year: Biehl, op. 30, Finger Exercises; Berens, op. 33, 3 books, Studies; Czerny, op. 299, Studies in Velocity; Bach, Little Preludes and Fugues; Clementi, op.

20, Sonata in E flat; Beethoven, Six variations on Nel cor piu.

Third Year: Biehl, op. 30, finger exercises; Loeschhorn, op. 66, book 3, Studies; Czerny, op. 553, Octave studies; Czerny, op. 740, Art of finger practice; Doering, op. 24, School of Octaves; Aloys Schmitt, op. 16, Studies; Bach, Inventions, two voiced.

Fourth Year: Biehl's finger exercises, continued; Pischna, Technical studies; Germer, Polyrhythmical studies, selected from Czerny, part IV, a; Cramer, studies, 4 books, Buelow; Bach, Inventions, three voiced; Kullak, Octave Studies, selected.

Numerous selections of the grade of Sonatinas, Clementi; Slumber Song, Biederman; Nocturnes, Field; Aquarellen, Gade; Melody, in F, Rubenstein; Sonatas, 1, 2, 3, Beethoven, op. 2; Harmonious Blacksmith, Hændel; Barcarolle, Raff, op. 3; Fantasies, Schumann, op. 12; Nocturnes, Chopin; Andante in F, Beethoven; Concerto, C major, Beethoven, op. 15.

It is not supposed that a rigid course can be given which will meet the requirements of individual students, but the foregoing outline represents in a general way, the character of each year's work. Studies especially are named, because they indicate grade and character of requirements more clearly than can be done otherwise. No single student is expected to take more than a portion of the studies mentioned, and equivalents are liberally used to suit individual cases. On the other hand, these studies are supplemented by ample selections from classic and modern authors for use in the parlor or concert room.

A testimonial and record of work done will be given to any student upon application at the end of any year.

To any students who are sufficiently far advanced an extended course will be given. The Well Tempered Kalvier, by Bach, and studies selected from those of Clemneti, Gradus; Kullak, Octaves; Chopin op. 10 and 25; Rubinstein, and concert studies of Liszt, Thalberg, Godard, Henselt and others.

The pieces will be selected from the larger works by Chopin, Ballades, Impromptus, Fantasies and Polonaises; Beethoven, sonatas; rhapsodies by Liszt; and concertos by Beethoven, Weber, Mendelssohn, Schumann, Grieg and the Hungarian Fantasie, by Liszt.

Voice.

Mrs. R. C. Brooks, teacher of the voice, studied with Professor J. L. Frank at Tabor College, Iowa, and with Mr. Wm. L. Whitney at the New England Conservatory, Boston, Mass. Mrs. Brooks will instruct only a limited number of students. Terms, $8.00 for twelve lessons.

First Year: Breathing, tone placing, voice building, etc., with appropriate exercises.

Second Year: Studies: Panofke, books I and II; Scales and arpeggios.

Third Year: Studies: *Concone*, Luetgen; chromatic scales, swelled sounds, small notes.

Fourth Year: Studies: Bordoyni, *Concone*; passages from operas and oratorios for the trill, phrasing and the cadenza.

Songs and concerted vocal music will be selected from the best German, French, English and American composers as may be especially adapted to the individual style and ability of each student.

The U. of O. Glee Club.

This club consists of 16 male voices picked from among the students at large. Tryouts will be made during the first week of the fall semester, and all musical students with voices are invited to try for a place in the club.

The club, with Mr. W. Gifford Nash as pianist, and Mr Irving M. Glen as baritone soloist, gave seven concerts during the Christmas holidays of 1897–98.

The club is now a permanent organization of the University. A yearly election of officers is held and a leader and manager are chosen from outside the regular membership of the club. The officers this year are Pres., W. G. Beattie; Vice-Pres., J. R. Barber; Sec., and Treas., Allen Eaton; Leader, I. M. Glen; Manager, W. G. Nash.

PHYSICAL EDUCATION.

Director, Charles A. Burden.

Physical education is treated as a very important part of college work. The university gymnasium is admirably equipped for this purpose. It is provided with all the most useful gymnastic apparatus. Several pieces have been added during the year, especially instruments to be used in taking physical measurements and strength tests.

The main hall is forty by eighty-five feet, with a twenty-five foot ceiling. On the same floor is the office of the director, and a room for anthropometry; there is also a gallery for spectators in the west end.

The annex contains dressing rooms; lockers, sponge and shower baths, and boiler room. Students can have the use of a private locker for a fee of one dollar per year. A deposit of fifty cents is required for the key.

The department is conducted upon strictly scientific principles. Dr. Seaver's chart system is used, showing the relation of the individual in size, strength, symmetry, and development to the normal man of the same age.

Students may take the physical examinations and have their exercises prescribed, or may enter one of the regular classes.

The aims of physical education are two-fold: hygienic and educative.

Hygienic.

To aid function: Feeling, will and thought, which constitute the life of the mind, cause physical waste of brain and other nerve-tissue. The resupply must be drawn from bodily resources.

To develop form: Free action of lungs and heart demands an expanded, and mobile chest. Beauty of form depends upon the true proportion of the different parts. The proper carriage of the body as a whole affects both grace and health.

To correct undeveloped or deformed parts: Symmetry of form is rare. The work of the organs is impaired by asymmetry, and the tendency of deformity is to increase for lack of healthful exercise.

To supply recreation: Mental work causes congestion of nerve centers, prelonged mental work tends to make the congestion permanent. The object of recreative bodily exercise is to withdraw the blood to the skeletal muscles and give rest to the nervous system.

Educative.

To perfect nervous control: Exercises of skill and precision train the nerve centers and muscles to act quickly and accurately in response to the command of the will.

To produce mental and moral self-control: Competitive individual work offers an incentive for personal development. General athletics trains men better to meet the emergencies of life by giving them readiness of resource, quickness of thought and action, courage in difficulties, moderation in success aud steadiness in defeat.

To develop muscular strength: This is not an end but a means by which we may secure a higher sum total of force for other uses.

Students electing these courses through the college years will find them an efficient aid to future efforts both mental and physical. The work of the course is progressing, changing from year to year, so that a student may enter at any time and find exercise suited to his physical conditions. Reasonable effort is made to encourage interest in out-door sports for it is believed that exercise in the open air is of primary importance.

The Director devotes a considerable part of his time, when the season is suitable, to directing out-door exercises, such as rambling, tennis, athletics of all kinds.

The students maintain an athletic club which encourages out-door athletics, and it permitted by the faculty to participate to a certain extent in inter-collegiate sports.

In addition to the regular class drills, a certain part of which consists of training in athletic sports, the university is represented by a foot-ball eleven, a base-ball nine,

a track athletic team, a tennis club, basket-ball team, and an indoor base-ball club. Other teams beside these are formed to give the university teams practice and to give athletic practice to as many students as possible.

Women are admitted to separate classes in physical education under the same conditions as men.

Physical examinations are free of charge, and the Director will be ready to examine students at any convenient time.

Medals are given by the director for proficiency in hand-ball, club-swinging and gymnastics.

PROGRAMME OF THE PRESCRIBED STUDIES

9 Physics, 1, 3, 5—9 a. m.
60 Rhetoric, 1, 2, 3, 5—9 a. m.
63 History, 1, 3, 5—10 a. m.
64 Ethics, 1, 3, 5—10 a. m.
56 Literature, 2, 4, 5—11 a. m.
44 Economics, 2, 4, 5—11 a. m.
49 English, 1, 50 English, 1, 11 a. m.

GRADUATE COURSES.

Beginning with the year 1897 the Master's degree will be granted to graduates of the university and other qualified persons on the following conditions:

They must take in the university and under the supervision of the faculty, one major and two minor courses which will be equivalent to sixteen credits. At the end of the year they are to be examined in these courses by the professors who have charge of them; and if there are only two of these professors the president of the university is to appoint a third examiner.

Candidates for the Master's degree must make application for it on or before October first; have a baccalaurate degree acceptable to the university of Oregon; select a

major and two minor subjects acceptable to the committee on studies; earn eight credits in a major subject and eight in minors; write a thesis acceptable to the professor having charge of the major subject, of which a typewritten copy is to be deposited in the library of the university; pass a written examination, two-thirds of the questions being in the major subject; *reside at the university during the year of study*; pay the regular incidental fee of ten dollars which is to go to the library fund.

A candidate having complied with these conditions and successfully completed one year of study will receive the degree master of arts or master of science, according to his bachelor's degree.

Until further announcements are made candidates for the master's degree may select their major subjects, 8 credits, from any suitable work not previously taken in the university; but it must all lie in the same department and must be approved by the head of that department.

SCHOOL OF LAW.

The Staff.

[SIXTEENTH YEAR.]

C. H. CHAPMAN, Ph. D., President.
RICHARD H. THORNTON, LL. B., Professor in charge.
HON. W. B. GILBERT, of the U. S. Circuit Court of Appeals, Lecturer on Constitutional Law.
MR. JOHN W. WHALLEY, of the Oregon Bar, Lecturer on Pleading.
HON. C. B. BELLINGER, U. S. District Judge, Lecturer on Equity.
MR. RICHARD H. THORNTON, of the Oregon Bar, LL. B., of Georgetown, Lecturer on the Common Law, the Law of Contracts, and the Law of Evidence.

This Law School is held in the city of Portland. The

lectures are delivered at 7:15 p. m., in the rooms of the Portland Business College. Lectures in the junior year are on Tuesdays, Thursdays and Saturdays.

The entire course consists of two sessions of about thirty weeks each, from October to May inclusive. The session opened on Wednesday, September 28, 1898.

The number of graduates in this department is something over two hundred, many of whom are practising or administering the law with success in the Pacific North-West.

The text-books in the junior year are Blackstone, Kent, and Parsons on Contracts. In the senior year, Gould on Pleading, Vol. 1 of Greenleaf on Evidence, Pomeroy on Equity, Black on Constitutional Law, and the General Laws of Oregon. "Cox's Questions" will be found useful in the work of the first year. The cost of Blackstone and the Question book is $12,50, and they can be had from the professor in charge.

The tuition fee is sixty dollars (in gold) per session, payable in equal installments on the 5th day of October, January and March. Regular attendance is necessary, and no deduction can be made on account of absence. The final examination fee (non-returnable) is ten dollars.

Applications for admission are to be addressed to

Professor Richard H. Thornton, Attorney at Law,
502 Goodnough Building, Portland, Oregon.

SCHOOL OF MEDICINE.

Faculty.

C. H. CHAPMAN, PH. D., President
HENRY E. JONES, M. D., Emeritus Professor of Clinical Gynæcology.
CURTIS C. STRONG, M. D., Emeritus Professor of Gynæcology.

S. E. Josephi, M. D., Dean of the Faculty; Professor of Obstetrics and Nervous Diseases.

Ernest F. Tucker, M. D., Professor of Gynæcology.

Holt C. Wilson, M. D., Professor of Principles and Practice of Surgery.

Otto S. Binswanger, M. D., Professor of Chemistry and Toxicology.

K. A. J. Mackenzie, M. D., Professor of Theory and Practice of and Clinical Medicine.

Richard Nunn, M. D., Professor of Eye, Ear, Nose and Throat.

J. F. Bell, M. D., Professor of Materia Medica and Therapeutics.

M. A. Flinn, M. D., Professor of Physiology.

G. M. Wells, M. D., Professor of Pædiatrics.

W. H. Saylor, M. D., Professor of Diseases of the Genito-Urinary Organs and Clinical Surgery,

A. J. Giesy, M. D., Professor of Clinical Gynæcology.

Wm. Jones, M. D., Professor of Clinical Surgery.

George F. Wilson, M. D., Professor of Military and Operative Surgery and Clinical Surgery.

Franklin Cauthorn, M. D., Professor of General and Descriptive Anatomy.

Special Lecturers.

A. E. Mackay, M. D., Lecturer on Microscopy and Bacteriology.

Afdrew C. Smith, M. D., Lecturer on Clinical Surgery.

Geo. F. Koehler, M. D., Lecturer Adjunct to Chair of Anatomy.

W. E. Maxwell, M. D., Lecturer on Hygiene and Dermatology.

A. D. Mackenzie, M. D., Lecturer Adjunct to Chair of Physiology.

J. J. Panton, M. D., Lecturer on Histology.

L. B. Cox, Esq., Lecturer on Medical Jurisprudence.

R. C. Yenney, M. D., Lecturer on General and Special Pathology.

John M. Brooke, M. D., Demonstrator of Anatomy.

TWELFTH ANNUAL ANNOUNCEMENT.

The Medical Department of the University of Oregon, having recognized the desirability of advancing the standard of medical education to a higher level and long since increased its requirements for graduation from two or three courses of lectures, in accordance with its intention previously announced, in 1895 established itself as a graded school occupying the advanced rank of those requiring from their students as a condition of graduation, attendance upon four full courses of lectures in a regular medical college. The result of this advance as shown in our work under the four years course system has proved eminently satisfactory.

Full particulars as to proper credit to be given for equivalent for the first year course, entrance examination, etc., may be found under the head of "Requirements for Admission." Information as to credits for previous courses of lectures taken in other approved medical colleges, may be found under the head of "Requirements for Graduation."

The opening lecture of the twelfth annual session will be delivered at 9 a. m., Wednesday, October 4, 1899. Students are requested to be in attendance at the commencement of the session, so that they may not lose the benefit of knowledge to be delivered from the opening lectures.

Examinations for matriculation may be arranged with the Dean at any time.

Special examinations in Latin and Physics for conditioned matriculates will be held during the first week of the session; during the same period the fall examinations will be held for advancement to the second, third or fourth year standing for those who failed to attain the requisite number of credits in the spring examinations. This privilege does not apply to students who may have failed in their finals for the degrees For such there is each year but one examination, which occurs in March.

Hospital Clinics.

Instruction in medicine and surgery, to be efficient, must combine didactic and clinical teaching, and no opportunity for the last named class of studies are in any sense equal to those offered by the wards of a general hospital.

Our connection, through members of the faculty, with St. Vincent's, Good Samaritan and Multnomah county hospitals, is such as to afford the most enlarged advantages for clinical instruction in the wards of those institutions, members of the medical staff of each being also members of the college faculty.

Hospital clinics are held on five days of each week during the session. Opportunities are given students to make diagnoses of diseases and prescribe treatment therefor; and operations of endless variety are performed (in presence of the class), according to the most advanced methods of modern surgery.

Special attention will be given to instructing the student in methods of examination for purpose of diagnosis of both medical and surgical cases and the use of appropriate instruments for that purpose. In addition to clinics formerly given, a "Clinic Conference" in both Medicine and Surgery has been established which has proved very beneficial to the student.

As has been done during past sessions, each senior student will be given an opportunity to attend and conduct, under proper supervision, cases of midwifery. This affords undergraduates a practical knowledge of midwifery, which must prove of great value in their future professional work.

In addition to didactics and clinical lectures, instruction will be given by practical work in the dissecting rooms and laboratories, and by repeated oral examinations.

Location.

The new college building, located corner Twenty-third and Lovejoy streets, opposite Good Samaritan hospital, was completed and occupied during the session of 1892–93. It is a model of convenience, being furnished with all the aids to medical education which modern advancement requires. Laboratories for chemical, bacteriological and other work are provided, and arrangements made for special attention to these important practical departments. The dissecting room is most conveniently arranged, is light and airy and is furnished with artificial stone tables of special design and electrical fixtures for artificial illumination.

The building is heated by hot water, lighted by gas and electricity, and provision made for excellent ventilation. The Twenty-third street electric cars pass the location every few minutes. To reach the college by this line take the Washington street car designated Twenty-third street. St. Vincent's new hospital erected only a short distance from the college, is now completed and occupied, so that, with the Good Samaritad hospital across the street, the arrangement of college and hospitals for clinical work is a most convenient one.

Dispensary and College Clinics.

The dispensary, located at Good Samaritan hospital, and at the college building, affords ample opportunity for the study of diseases usually met with in office practice. Particular attention will be given to familiarize the student with the best methods of diagnosis and treatment of the various maladies, medicinal and surgical, which present themselves at these clinics.

More attention is being given to the "quiz" or recitation feature of the didactic lectures and there has been introduced a system of marking for recitations throughout the session which will count in averaging the percentage on final examinations.

COURSE OF STUDY.

First Year. Anatomy, with dissection; Normal Histology, General Chemistry, Materia Medica and Pharmacy, Physiology.

Examinations at the end of year in Osteology and Syndesmology, Principles of Chemistry, Elementary Materia Medica, Physiology (Prox. Principles and the Blood), Histology.

Second Year. Anatomy, with dissections, finished; Physiology, finished: Chemistry, with laboratory work, finished; Materia Medica and Therapeutics, finished; Microscopy, Hygiene, Obstetrics (Pelvic Anatomy, Embryology and Normal Labor); Physical Diagnosis; Clinical Medicine.

Examination at end of year: Anatomy, final; Physiology, final; Chemistry, final; Materia Medica and Therapeutics, final; Hygiene; Pelvic Anatomy, Embryology and normal Labor.

Third Year. Theory and Practice of Medicine, General Therapeutics; Principles and practice of Surgery and Bandaging, Pathology with Laboratory work, Pædiatrics, Dermatology, Gynæcology, Genito-Urinary Diseases, Physical Diagnosis, Ophthalmology and Otology, Obstetrics, Clinics, all; Microscopy and Bacteriology with Laboratory work.

Examinations in Principles of Medicine, Principles of Surgery, Pathology, final; Gynæcology, Physical Diagnosis, Obstetrics, final; Dermatology, Diseases of Genito-Urinary Organs; Operative Surgery; Clinics, all; Gynæco-

logy, except elementary; Genito-Urinary dieases; Opthalmology and Otology; Rhinology and Laryngology; Microscopy and Bacteriology, with Laboratory work; Pædiatrics; Insanity and Diseases of the Nervous System.

Examinations. Final in above.

Requirements for Admission.

This school is a member of the Assocation of American Medical Colleges and will conform to its requirements as set forth in the following extract from the constitution of the Association:

ARTICLE III.

SECTION 1.—Each college holding membership in this Association shall require of each student, before admission to its course of study, an examination the minimum of which shall be as follows:

1. In English, a composition on some subject of general interest. This composition must be written by the student at the time of the examination, and should contain at least 500 words. It should be criticised in relation to thought, construction, punctuation, spelling and handwriting.

2. In arithmetic, such questions as will show a thorough knowledge of common and decimal fractions, compound numbers, and ratio and proporation.

3. In Algebra, such questions as will bring out the student's knowledge of the fundamental operations, factoring and simple quadratic equations.

4. In Physics, such questions as will discover the student's understanding of the elements of mechanics, hydrostatics, hydraulics, optics and acoustics.

5. In Latin, an examination upon such elementary work as the student may offer, showing a familiarity usually attained by one year of study; for example, the reading of the first 15 chapters of Cæsar's Commentaries, and the translation into Latin of easy English sentences involving the same vocabulary.

SEC. 2.—In place of this examination, or any part of it, colleges, members of this Association, are at liberty to recognize the official

certificate of reputable literary and scientific colleges, academies, high schools and normal schools, and also the medical student's certificate issued by any State examining board covering the work of the foregoing entrance examination.

SEC. 3. Colleges, members of this Association, may allow students who fail in one or more branches in this entrance examination the privilege of entering the first year course, but such students shall not be allowed to begin the second course until the entrance requirements are satisfied.

SEC. 4.—Colleges, members of this Association are free to honor official credentials issued by medical colleges of equal requirement except in the branches of study embraced in the last year of their curriculum.

SEC. 5.—Candidates for the degree of Doctor of Medicine in the year 1899 and thereafter shall have attended at least four courses of medical instruction, each course of at least six month's duration, no two courses of which shall have been in the same calendar year.

SEC. 6.—Colleges, members of this Association, are free to give to students who have met the entrance requirements of the Association, additional credit for time on the four-year course as follows: [a] To students having the A. B., B. S., or equivalent degrees from reputable literary colleges, one year of time. [b] To graduates and students of colleges of homeopathic or eclectic medicine, as many years as they attended those colleges, provided they have met the previous requirements of the Association and that they pass an examination in materia medica and therapeutics. [c] To graduates of reputable colleges of dentistry, pharmacy and veterinary medicine, one year of time.

NOTE.—It is earnestly recommended to the student intending to take the entrance examination, that a careful review be given the studies mentioned in order that he may be spared the humiliation of rejection.

The work of the first year in the medical school may be pursued in the scientific department at Eugene under prescribed regulations.

Before admission, every student is required to obtain the Dean's receipt for the payment of the matriculation fee. It will therefore be necessary for the applicant to present himself at the office of the Dean, register his name as a student in the medical department, and pay his fee. New students will be assigned seats in the order of date of matriculation.

REQUIREMENTS FOR GRADUATION.

The candidate for the degree of Doctor of Medicine must be of good moral character and twenty-one years of age. He must have studied medicine under a regular practitioner four years, including attendance upon lectures, and attended in a regular medical college authorized to confer the degree of M. D., four full courses of lectures (no two of which shall have been delivered within twelve months), the last of which must have been in this college; and must exhibit his tickets or other adequate evidence of attendance to the Dean of the Faculty. He must present to the Dean satisfactory evidence of having dissected the entire cadaver. He must have attended at least two courses of Dissections and Clinical Instruction. He must present to the Dean satisfactory evidence of time of study and moral character. He must have passed successfully the examinations, prescribed by the Faculty, and have paid all fees due the college.

The degree will not be conferred upon any candinate who absents himself from the public commencement exercises without special permission of the Faculty.

The diploma given to graduates is that of the University of State of Oregon, duly signed by the president and secretary of the Board of Regents, as well as by the medical faculty.

Women will be admitted to matriculation, instruction and graduation on the same terms as men.

College Expenses.

ALL FEES ARE PAYABLE IN ADVANCE.

To those who enter at beginning of first year:	
First year: Matriculation,	$ 5 00
Fee for course,	130 00
One-quarter examination fee,	7 50
Second year: Fee for course,	130 00
$3.00 deposit for laboratory breakage. (Returnable).	
One-quarter examination fee,	7 50

Third year: Fee for course,	100 00
One-quarter examination fee,	7 50
To those entering beginning of second year [not having taken a course in this college]:	
Second year: Matriculation,	5 00
Fee for course,	130 00
$3.00 deposit for laboratory breakage. [Returnable].	
One-third examination fee,	10 00
Third year: Fee for course,	130 00
One-third examination fee,	10 00
Fourth year: Fee for course,	30 00
One-third examination fee,	10 00
To those who enter beginning of third year [not having taken a course in this college]:	
Third year: Matriculation,	5 00
Fee for course,	130 00
One-half examination fee,	15 00
Fourth year: Fee for course,	50 00
One-half examination fee,	15 00
To those who enter beginning of fourth year [not having taken a course in this college]:	
Fourth year: Matriculation,	5 00
Fee for course,	10 co
Examination fee,	3 00

Boarding.

Good board with rooms and all the usual accommodations, can be obtained in the vicinity of the college at rates varying from $4 to $6 per week.

Text Books.

The following list of books is given as a guide to the student (latest editions preferred). Titles in Italics are for reference only:

Anatomy: Gray, *Quain, Morris.*

Physiology: Waller, *Kirk, Yeo, Foster, Flint, Dalton.*

Chemistry: Withaus, Fowne, Purdy Practical Urinalysis, *Bartley, Semple's* "Aids to Chemistry."

Materia Medica: Potter, Shoemaker, *Nat. Disp., U. S. Disp., Ringer, Bartholow, Butler.*

Surgery: Bryant, Ashurst, Moulin, *Gross*, *Wyeth*.

Theory and Practice: Osler, Roberts, Loomis, *Pepper*, *Reynolds*.

Diagnosis: Loomis, Fenwick, *Gee*.

Obsteterics: Lusk, *Grandin & Jorman*, *Davis*, *Leischman*.

Diseases of Children: Starr's Amer. Sys., Diseases of Children, *Keating*, *Smith*, *Roche*, *Holt*.

Gynæcology: Garrigues, Byford, *Hart & Barbour*, *Thomas & Munde*.

Opthalmology, Otology: Juer, Roose, *Noyes*, *Buck*, *Fuchs*.

Pathology and Histology: Gibbes, *Delafield and Prudden*.

Laryngology: Seiler.

Dermatology: Crocker, *Morrow*.

Toxicology: Taylor.

Orthopædic Surgery: *Sayre*.

Nervous Diseases: M. Allen Starr, *Gowers*.

Insanity: Kirchkoff, *Bucknill and Tuke*, *Blandford*.

Genito-Urinary Diseases: White & Martin, *Taylor*, *Otis*, *Keys*.

Medical Jurisprudence; Taylor, *Tidy*.

Hygiene: Coplin & Bevan, *Rohe*.

Bacteriology: Fraenkel, *Sternberg*.

Hospital Appointment.

Arrangements have been perfected by which the college has in its gift two appointments each year of house surgeons to the Good Samaritan hospital. The appointment is for one year, during which time board and lodging will be furnished free at the hospital. An excellent opportunity is thus afforded to the graduate to acquire in the wards of a well equipped hospital, without any expense, a

practical knowledge by clinical experience and actual practice. The house surgeons of St. Vincent's hospital are also supplied from the alumni of this college.

PRIZES.

Saylor Medal.

The Saylor Gold Medal, founded by Prof. Saylor, will be awarded to the graduate passing the best examination in all branches.

Koehler Medal.

The Koehler Gold Medal, founded by Dr. George F. Koehler, will be awarded to the undergraduate who obtains the highest total mark in Anatomy in final examination in that branch. Provided such mark is obtained at the regularly appointed years for such examination. The medal will be presented to the winner only at the time of graduation from this college.

Medalists 1897-98,

SAYLOR MEDAL—H. A Littlefield, M. D.
KOEHLER MEDAL—F. D. Reames, C. W. Bales.

Directions to Students.

Students will matriculate at the office of the Dean, Prof. S. E. Josephi, Dekum building, Third and Washington streets, Portland, Oregon.

For further particulars address

Professor S. E. JOSEPHI, M. D.,
Room 610, The Dekum, 3rd. and Washington Sts.,
Portland, Oregon.

REGISTER OF STUDENTS.

COLLEGE OF LETTERS.

[The letters show the degree or diploma sought].

ABBETT, EARL RICHARD, Eugene, A. B.
ADAMS, AGNES, graduate student.
ADAMS, PERCY P., Eugene,
ALLOWAY, DAISY E., The Dalles.
ANGELL, HOMER DANIEL, The Dalles.
ANKANY, DOLLIE A., Eugene, A. B.
BAIRD, OSCAR E., Portland, A. B.
BANNARD, SUSIE P., Brownsville.
BARBER, JOHN R., Portland, A. B., Senior.
BEAN, CONDON R., Salem.
BEATTIE, W. GILBERT, Oregon City, A. B.,
BEAUDREAU, EDWIN F., Ellensburg, Wash., Special.
BENTON, HARRY, Colfax, Wash.
BILYEU, COKE, Eugene, Special.
BISHOP, CLARENCE M., Salem, B. R.
BLYTHE, EDWARD N., Hood River.
BOARDMAN, VINCENT E., Mitchell, A. B.
BONNEY, EMMA ERMINE, Tygh Valley.
BRADLEY, MARIE, Medford, B. S.
BRADLEY, LAWSON G., Medford, A. B.
BRYSON, ROSCOE S., Corvallis, A. B., Senior.
BURR, ANNETTE, EUGENE, A. B.
CALEF, IDA A., Eugene, B. S.
CALEF, ORA F., Eugene, B. S.
CAMPBELL, CHAS. L., The Dalles.
CAMPBELL, GEORGE R., The Dalles, C. E.
CARLETON, EDMUND F., Lebanon, B. S.
CARLETON, JESSIE L., Lebanon,

CARRICO, JAMES H., Oregon City, B. A., Senior.
CARROLL, WALTER F., Eugene, B. S.
CASTEEL, CALVIN, Cottage Grove.
COPPLE, CLAUDE E., Hood River.
COPPLE, ROBERT A., Hood River.
CRADLEBAUGH, RUDY B., Portland, M. E.
CRAIG, LULU MAUDE, Eugene, A. B.
DAISLEY, MARGARET E., Pomeroy, Wash., Special.
DAISLEY, MARY, Pomeroy, Wash., Special.
DALE, DORETHEA P., Eugene, A. B., Senior.
DAUGHERTY, FRANK M., Cove, Special.
DAUTOFF, JACOB D., Portland.
DENSMORE, HARVEY B., Eugene, A. B.
DILLARD, DAISY D., Eugene, Special.
DILLARD, WALTER B., Goshen.
DRIVER, GRACE, Eugene, A. B.
EATON, ALLEN H., Cove, A. B.
ELLISON, EDWARD J., Roseburg, Special.
FICKLIN, MARY, Union, B. S.
FORD, OLIN F., Eugene, B. A.
FORD, BURGESS, F., Eugene, B. A.
FOUNTAIN, CLAUDE R., Klamath Falls, Special.
FRIENDLY, THERESA, Eugene, Graduate Student.
GALE, LENORE, E., Eugene, Special.
GALLOWAY, CHAS. V., Oregon City, A. B., Senior.
GARRIGUES, PERCY, M., Heppner, Special.
GEDDES, ALFRED L., Sodaville, Special.
GEDDES, DAISY A., Sodaville, Special.
GILBERT, GEO. W., Baker City, B. A., Senior.
GOODALL, GEO. O., La Grande, Special.
GOODRICH, LUKE L., North Yamhill, Special.
GORRELL, OSCAR, Stephens, B S.
GRIFFIN, LIZZIE MAY, Eugene, B. A., Senior.
GRIMES, ANNA M., Harrisburg, B. S., Senior.
GRIMES, ZOLA E., Harrisburg, B. S., Senior.
GROSS, DANIEL A., Bandon, Special.

HAMMOND, BESSIE W., Medford, B. S.
HANDSAKER, JOHN J., Pleasant Hill, A. B.
HAWTHORNE, MINNIE L., Eugene, B. S.
HEMENWAY, ANSEL F., Springfield, B. S.
HEMENWAY, OSCAR E., Springfield, B. S., Senior.
HEMENWAY, MAY, Eugene, A. B.
HENDRICKS, ELMA L., Eugene, B. S.
HENDRICKS, RUBY V., Eugene, B. S.
HIATT, ARTHUR C., Baker City, E. E.
HOLMES, AMY M., Astoria, Special.
HOLT, VICTOR L., Talent, A. B.
Hovey, Blaine H., Eugene, A. B., Senior.
HUDSON, FLORENCE A., Tangent, Special.
HUGHES, WM. G. V., Heppner, Special.
HUMBERT, G. S. O., Eugene, Special.
HUNT, RALPH BOYD, Bandon, Special.
INWALL, HENRY A., Irving, A. B.
JACKWAY, BERNARD C., Portland, Special.
JENNINGS, Bessie M., Eugene, B. S.
JOHNSON, ALBERT W., Coquille City, Special.
JOHNSON, ESTHER E., Eugene, A. B.
JOHNSON, FAITH, Eugene, A. B.
JOHNSON, WM. H., Jacksonville, A. B.
KERNS, MAUDE I., Eugene.
KIMBRELL, GEARY, Pendleton, B. S.
KUNEY, KARL L., Wasco, B. S.
KUYKENDALL, SYBIL E., Eugene, A. B.
LAUER, HENRIETTA, Graduate Student.
LISTER, MILDRED SYBIL, Independence, Special.
LUCKEY, PEARL, Eugene, B. S.
MARSH, MARY E., Eugene, A. B., Senior.
MCALISTER, ELLA E., Eugene, A. B.
MCARTHUR, CLIFTON N., Portland, A. B.
MCCARTER, KATHERINE S., Meacham, Special.
MCCARTHY, HERBERT G., Grants Pass, Special.
MCCLANAHAN, EDWARD E., Eugene, Special.

McElroy, John C., Eugene, B. S.
Meserve, Albert E., Portland, E. E.
Miller, Annie Laura, Eugene, Graduate Student.
Miller, Kenneth C., Eugene, Special.
Miller, Mabel D., Eugene, Special.
Miller, Winnifred K., Eugene, Special.
Moist, Joseph A., Lebanon, Special.
Moon, Everard R., Kelso, Wash., Special.
Moore, Charles R., Brownsville, Special.
Moore, Lenore, Bridal Veil, B. S.
Murray, Grace M., Eugene, B. A.
Ostrander, Guy H., Union, Special.
Page, Dora F., Oakland, Special.
Patterson, Elmer Merton, Portland, Special.
Patterson, Harriette, Eugene, A. B.
Pengra, Clara B., Eugene, B. S., Senior.
Pickel, Adele J., Medford, Special.
Platts, John B., Eugene, Special.
Prather, Gertrude E., Eugene, Special.
Randle, Henry C., Lebanon, Special.
Read, Lawrence A., Portland, B. S., Senior.
Renshaw, Lulu M. Eugene, A. B., Senior.
Renshaw, Roy, Eugene, B. S.
Ridings, Ellis R., Marquam, Special.
Robley, Roy Rees, Ashland, E. E.
Scarborough, Martin, M., Creswell, Special.
Schwartzschild, Morris, Eugene, B. S.,
Scott, Leslie M., Portland, A. B., Senior.
Sears, Alfred F., Portland, A. B.
Sears, Sadie A., Ballston, B. S.
Sears, Vestella B., Ballston, B. S.
Senders, Harry A., Junction City, B. S.
Slater, Bertha E., La Grande, B. S., Senior,
Smith, Richard S., Altamont, A. B.
Spencer, Bernard E., Ashland, B. S.
Spencer, Walter V., Thatcher, Wash., Special.

Stanton, Cole E., Roseburg, Special.
Starr, Ralph G., Dayton, Special.
Stockton, Fred, Ballston, B. S.
Stockton, Holt, Ballston, B. S.
Straub, Mary E., Eugene, A. B.
Templeton, Chas. L., Halsey, B. S., Senior.
Templeton, Bertha R., Halsey, Special.
Thayer, Fredrick G., Oregon City, Special.
Thompson, Marie J., Eugene, Senior.
Travis, Ella F., Eugene, B. S.
Van Dyke, Edward S., Grants Pass, A. B.
Wagner, Benjamin F., Ashland, Special.
Wagner, Charles E., Ashland, E. E.
Walton, Pauline E., Eugene, B. S.
Waltz, Arthur B., Baker City, A. B.
Ware, Joel B. H., Eugene, B. S.
Watts, Marville L., Athena, A. B.
Wetherbee, Mary A., Creswell, Special.
Whittlesey, Walter L., Portland, A. B.
Whipple, Herbert J., Cheyenne, Wy., B. S.
Wigle, Nellie S., Brownsville, Special.
Wilson, Kate E., Pleasant Hill, Special.
Wimberly, Elmer, Roseburg, Special.
Winstanley, John B., Salem, Special.
Wold, Grace I., Eugene, A. B.
Wold, Irving, Eugene, C. E.
Wright, Susie M., Harrisburg, Special.
Wylie, Cora E., Eugene, A. B.
Young, Siegfred A., Astoria, Special.
Zeigler, Frederick J., Portland, B. S.

STUDENTS IN MUSICAL DEPARTMENT.

Pianoforte.

ANKENY, MISS DOLLIE, Eugene.
ANKENY, MISS DEE, Eugene.
BROWNELL, MISS JOYCE P., Albany.
BAUM, MISS SADIE, Eugene.
COOK, MRS. GRACE B., Eugene.
CARROL, MISS CAMILLE, Eugene.
COLEMAN, MISS CLARA, Coburg.
DORRIS, MISS BENETTA, Eugene.
FRIENDLY, MISS THERESA, Eugene.
FRAZER, MR. ARTHUR L., Eugene.
FORD, MISS SADIE, Eugene.
GOLDSMITH, MISS ZIDA, Eugene.
KRONERBUSCH, MISS GRACE, Eugene.
KUYKENDALL, MISS MABEL, Eugene.
LAUER, MISS HENRIETTA, Eugene.
MESERVE, MISS EMILY, Eugene.
PAGE, MISS DORA, Oakland.
RENSHAW, MISS LULU, Eugene.
STANTON, MR. C. E., Roseburg.
TEMPLETON, MISS BERTHA, Halsey.
VAN DYKE, MR. ED., Grants Pass.
WASHBURN, MISS MARTHA, Eugene.
WASHBURN, MRS. F. L., Eugene.

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